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ART. I.—*Reports of Cases, treated in the Louisville Marine Hospital.* By GEORGE W. BAYLESS, M. D., Demonstrator of Anatomy in the Medical Institute of Louisville.

AMONG a considerable number of cases, treated in this house during the months of July and August, 1840, the following are considered to possess sufficient interest to merit a brief notice.

In presenting these cases, we shall not pursue the usual plan of noticing the daily condition and changes, with the prescription, for the reason that we deem it better to abbrevi-

ate by giving the general features and results, than to enter into such a detail, which is not called for by their particular character.

Case 1st. Aneurism of the Aorta.—James M'Guinnative, of Ireland, aged about twenty-six years—a stout muscular man about five feet ten inches high—a stage driver by occupation, and of intemperate habits, was admitted July 2d. Stated that he had always been healthy up to last winter—that in January last, from exposure incident to his occupation, he took a severe cold, attended with cough and pain in one side, could not recollect which—that he was puked, purged, &c. and that he got better, but not entirely well. That he was able to go about in a short time, but continued to have a dry cough, attended with some dyspnœa, &c. which prevented him from resuming his occupation. That this state of things continued through the remainder of the winter and spring, and that he began to get worse about two or three weeks before he entered the hospital.

Symptoms when admitted.—Surface—skin in good condition, inconsiderable emaciation.—*Head*, normal.—*Thorax*—cough troublesome, occasional slight dyspnœa, inconsiderable mucous expectoration, pretty good resonance, and nothing unusual discovered by auscultation. Circulation not well distributed to the extremities—pulse eighty, small and feeble—no particular examination made of the heart.—*Abdomen*—tongue slightly covered with a whitish fur; appetite not good, but the stomach retained and digested very well whatever of food was taken; bowels, in a good condition, no pain nor tenderness, upon pressure, in any part of the abdomen.

Diagnosis uncertain; most probably chronic bronchitis, consequent upon the cold taken last winter. Directed vegetable diet—cupping over the anterior parts of thorax—

brown mixture, and mucilaginous drink. Found him at next visit somewhat relieved of the dyspnœa, but cough still troublesome. Brown mixture continued.

There being no manifest change in two days, he was ordered ung. tart. emetic, to free pulsation on anterior thorax; brown mixture to be continued.

A copious crop of pustules was produced in a day or two, when we discovered great force in the action of the heart, communicating a considerable impulse to the hand, and attended with acute pain upon pressure. Tinct. digital. was added to the brown mixture, and cups were applied to the præcordia.

The pain was mitigated by the cupping, but this great activity in the pulsation of the heart having continued unintermittingly for several days, and the dyspnœa, dry cough, and feeble pulse, which was very small considering the activity of the heart, still continuing, led us to believe that there was contraction of the left ventriculo-aortic valves, nowithstanding we could detect no morbid alteration in the sounds of the heart. We could not only easily account for the symptoms just named, upon the supposition of this lesion of the aortic semi-lunar valves, but we were compelled to suppose this or some affection of the aorta itself, which was not then indicated by any particular symptom. Brown mixture discontiued. Pulv. digital. gr. 1—morning, noon, and night.

This was continued several days, when we were called to him early in the morning, and found him laboring under extreme dyspnœa—heart beating violently—pulse much fuller and stronger than we had ever seen it, and had only changed within a few minutes, as we were informed by the house student—surface cold, and covered with a cold perspiration; face livid and turgid with blood—eyes semi-closed, and pupils

dilated—jugulars stuffed—total insensibility—brain evidently greatly engorged and oppressed with blood, and apoplexy seeming to be momentarily threatened. Before we reached the house, sinapisms had been applied to the breast and extremities, and an effort made to abstract blood: only two or three ounces could be obtained. A large orifice was immediately opened in the arm, and about thirty ounces of blood soon abstracted, with almost entire relief. His condition just described, together with the effect produced by thus rapidly diminishing the quantity of blood in circulation, confirmed us in the view which we had taken. These paroxysms continued to recur daily, and frequently two or three times a day, and always required the abstraction of blood before relief was obtained. We found that relief was afforded more speedily and with the loss of a smaller quantity of blood, which became desirable from the necessity of its frequent repetition, by opening a jugular. So satisfied was he that blood-letting was his only source of relief, that he implored it as an act of mercy, when a paroxysm was about to come on.

A few days before death, the nature of the affection became apparent from an increased fulness which was observed to make its appearance, extending two or three inches by the side of the left edge of the sternum,—commencing at the top—from a palpitation which became very obvious at the intercostal spaces of the part, and from his complaining of a "lump which choked him" about the top of the sternum. Death took place on the 8th of July, during one of the paroxysms already described.

Examination of the Body Nine Hours after Death.

Head. No cerebral symptoms having been observed since

opening the jugular had been resorted to, this cavity was not examined.

Thorax — Lungs.—Pulmonary veins partially engorged with very black blood—normal in every other respect, save interlobular emphysema which was pretty generally present throughout the lungs. *Heart.*—Right auricle and ventricle contained fibrinous concretions—the auricle containing also a coagulum of black blood—while the ventricle was almost entirely filled with an opaque, firm concretion, which adhered with some firmness to the columnæ carneæ; there was also a dark coagulum in the left auricle, but the left ventricle was empty. No particular lesion of the heart was discoverable, save a slight hypertrophy, without dilatation, of the left ventricle. *Aorta.*—At its arch we found an aneurismal sac, a cylindroid in shape, about two and a half inches in length, and two in diameter. It contained a small opaque coagulum, and probably others, but wishing to preserve it entire we did not lay it open. By the whole of its posterior surface it adhered very firmly, indeed inseparably, to the anterior surface of the trachea, just above its bifurcation. The coats of the sac were entire.

Abdomen.—No lesion, of consequence, of any its viscera.

The heart and aorta with the adherent trachea were placed in the Pathological Cabinet of the Louisville Medical Institute, where they may be seen.

Case 2d. Dysentery.—M'Donald, native of Ireland, aged twenty-seven years, (a mariner,) was transferred from the surgical to this ward on the 12th of July. He had been about two months in the surgical ward, under treatment for syphilis; and two days before he was transferred he was severely attacked with dysentery—having from ten to twenty evacuations in the twenty-four hours, of blood and mucus, produ-

cing great prostration, and attended with considerable tenesmus, but unaccompanied by any tormina, or febrile action. These symptoms continued at the time of his transfer. We will remark that the disease was prevailing to some extent in the city at the time, but this was the only case that made its appearance in the hospital.

℞. Calom. gr. ss., opii gr. ¼, ipecac. gr. i. ft. pilul., one every three hours. ℞. Tinct. opii gtt. xxv., mucilag. Amyli. f℥ iii. ft. enema, to be repeated pro re nata. Cupping over both iliac regions; mucilaginous drink and farinaceous diet.

Under this treatment, with the addition of blisters to the iliac regions continued for several days, the disease seemed to subside rapidly. The number of evacuations was reduced to three or four a day; they changed to an opaque whitish mucus, the tenesmus entirely subsided, and slight ptyalism was induced. Directed—Oleag. mixt. f℥ ss., every two hours until the bowels should be gently opened. Anodyne enema, diet and drinks continued.

Copious fecal evacuations, mixed with a very small quantity of the opaque mucus, were produced by the oleaginous mixture. Strength pretty good; some appetite. ℞. opii gr. ¼, ipecac. gr. i. ft. pil. one every four hours. Diet and drink continued.

There was decided and progressive improvement for several days in the character of the evacuations, in strength and appetite; but still some diarrhœa. Dover's powder grs. v. every six hours. Chicken broth—mucilag. drink. Continued to improve for some days, but the diarrhœa still obstinately continued, and the evacuations became of a brown watery character, mixed with some fecal matter, and very offensive. ℞. acetat. plumbi grs. ii., opii gr. ¼, ft. pil., one every three hours. Anodyne enema—farinaceous diet—mucilaginous drink.

From this time the diarrhœa continued; he gradually sunk. Hope's camphor mixture was employed, but he complained of its burning him; ammoniated julep, wine whey, sinapisms, &c., but he continued to sink, and died exhausted on the 27th of July.

Examination of the Body Fifteen Hours after Death.

Exterior.—Extreme emaciation. A bubo in each groin—an ulcer about the middle of the hypogastric region, leading to a cavity between the oblique and rectus, and transversalis abdominis muscles somewhat circular in its shape and three or four inches in diameter, having a branch extending down over the left upper branch of the pubis, so as to penetrate three or four inches between the adductor muscles. It contained a brownish offensive matter; and that portion of the pubis over which it passed was carious.

Head—Not examined.

Thorax.—Viscera normal.

Abdomen.—No trace of peritoneal inflammation could be discovered. *Stomach.*—Mucous membrane of its cardiac extremity thickened, and in a state of deep hyperæmia. *Small Intestines* normal. *Large Intestine.*—A number of ulcers, throughout its whole extent, mostly circular in form, and varying in size from two or three lines, to eight or nine in diameter. They presented a dark blackish appearance, the smaller penetrating only through the mucous coat, and the larger, having slightly elevated edges, penetrating through the subjacent tissue, leaving only the peritoneal entire. The mucous membrane was of a pale yellow color, softened throughout and deficient in many places. The deficiences increased from the cœcum to the rectum, there being only some fragments of the membrane left at the sigmoid flexure, and en-

tirely wanting in the rectum. At the place where it had lost the subjacent cellular tissue it presented a purple or blackish hue. Liver, spleen, and kidneys normal.

The large intestine and carious pubis were preserved for the Pathological Cabinet of the Medical Institute.

Case 3d. Dropsy.—M'Kay, a native of Kentucky, aged twenty-seven years—a marine—temperate habits, was admitted July 20th. Stated, that he had an attack of yellow fever in Natchez, in the fall of '39; that during convalescence from that attack he was seized with intermittent fever, which continued through the winter; that during the spring it several times ceased, and returned again at longer or shorter intervals, and that three weeks before entering the house his abdomen and extremities commenced swelling.

Condition when admitted.—Very weak, unable to sit up. *Surface*, extremely pale; skin distended by general anasarca, extending from head to feet; face greatly swollen; parietes of thorax and abdomen also implicated; lower extremities prodigiously large, upper not so large. *Head*, normal. *Thorax*, respiration performed easily; could discover no effusion into that cavity. *Heart*, normal; pulse about eigthy, and of tolerable strength. *Abdomen* immensely swollen by serous effusion, as evinced by a very obvious fluctuation. Digestion feeble; bowels constipated; urine in moderate quantity; could not discover the condition of the liver or spleen, by physical exploration, so great was the abdominal enlargement. Elaterium gr. ss., every two hours, until the bowels should be freely purged—farinaceous diet.

This treatment was continued a week, tolerably free fecal evacuations having been produced, and a slight diminution in the size of the lower extremities.

Failing about this time to make our usual daily visit, we

found on the second day, so great a diminution in the size of the face and abdomen that we were unable to recognize our patient until informed by himself of the nature of his disease. In the interval he had very copious watery evacuations, mixed with fecal matter, amounting to near a gallon in twenty-four hours, but yet his strength was not lessened. Some irritation of the stomach. Suspend the use of the medicine one day.

The elaterium was commenced on the second day and was continued for five or six days; at the end of which time, or about two weeks from his admission, the abdominal effusion seemed entirely gone, the swelling of the face and general surface had disappeared, there remained only a vestige of the swelling of the lower extremities, and his strength was so improved that he was able to walk about the ward. Discontinue medicine—bandage to lower extremities—nutritious diet.

From this time forward he went on to improve, without interruption, save one paroxysm of intermittent, and when the ward was transferred to Dr. Caldwell, on the 1st of September, he was on the use of the precipitated carbonate of iron, and was able to go about the yard, and perform the duties of assistant nurse.

Case 4th. Dropsy.—On the 17th of August, was admitted Hartshorne, native of New York, aged forty-seven years, a laborer—temperate habits. Stated, that he had for several years been subject to attacks of rheumatism; that about six weeks before his admission he was seized with acute rheumatism, affecting more particularly the knees; that he employed no physician, and used no remedial means, save perhaps some local stimulants; that the "pain in his knees" subsided in about a month; that shortly after he was seized with a very acute pain in the region of the heart, which continued three

days, and spontaneously subsided; that about the same time or immediately subsequent to it, his feet and legs, and abdomen commenced swelling, and continued to do so until the the time of his admission into the hospital.

Condition when admitted.—*Head*, normal. *Thorax*—respiration natural. Resonant throughout, save great dullness upon percussion, over a space covering the præcordial region proper, extending from the second to the seventh intercostal space, and about six inches in width. *Heart*, was found beating with considerable force, the impulsion being felt at the third intercostal space, above the nipple, instead of, as usual, at the cartilage of the fifth rib; no morbid sound could be detected by auscultation; pulse about ninety and very feeble. *Abdomen*, greatly distended by serous effusion; fluctuations very plain, appetite not good, digestion feeble, bowels loose, having four or five watery evacuations in twenty-four hours; urine in natural quantity; could not ascertain the condition of the liver and spleen. Lower extremities œdematous.

Diagnosis.—Contraction of the ventriculo-aortic semi-lunar valves, probably by the deposit of lymph at the time of the acute pain complained of, when metastasis took place. Probably hydropericardium.

Ascites and œdema of the lower extremities, dependant upon the obstructed circulation. From the diarrhœa we thought that absorption of the effused fluid had commenced, and was being thrown off by the bowels. Elaterium gr. ss., every two hours—farinaceous diet.

The treatment was continued four or five days, with the effect of producing almost a constant thin, watery discharge from the bowels, with an obvious diminution in the size of the abdomen and lower extremities, and without much loss of strength. In consequence of some irritation of the stomach

and bowels, the use of the medicine was suspended thirty-six hours. It was then re-commenced and continued until the 26th, with the same effects; when the ascites and œdema were almost entirely gone, and the dull præcordial space was not so large. The use of the medicine was again suspended, but the discharges from the bowels continued, and when he was transferred with the other patients on the 1st of September, there was scarcely a relic of the ascites and œdema; strength improving; free from pain, and in a fair way for at least a temporary recovery. From the active pulsation of the heart and the feeble pulse still continuing, there probably exists the structural lesion of the aortic valves spoken of, which will render him liable to dropsy again.

Case 5th. Neuralgia relieved by the extraction of a Tooth.—In the American Journal of Medical Sciences, for August, 1840, p. 509, Mr. G. B. Fundenberg, Dentist at Pittsburg, makes some observations on facial neuralgia, in which he asserts with most apparent confidence, that at least two thirds of the cases of this affection "are caused by pressure or other local irritation of the nerve." In support of his positon he gives three cases. In the first—a case of fourteen years standing, the anterior maxillary foramen, the point at which the patient had complained of most pain, was nearly closed; most probably by an osseous deposit, consequent upon the formation of an alveolar abscess contiguous to it. The foramen was exposed by an incision and drilled out, by which the nerve was freed from pressure, and the patient entirely relieved from his painful malady. In the second, a well marked case, the suspicion arose that it proceeded from some affection of the teeth; and upon tapping a superior bicuspis the patient screamed out with pain. An immediate cure was

effected by extracting the tooth, on the end of the fang of which was found "a large exostosis." In the third—a case of two years standing, in which the patient had complained of "a singular pain in the side of the head, accompanied by a darting pain in the lower jaw," and which gradually extended down the neck and side, a similar effect as in the second case was produced by tapping an inferior cuspidatus—the tooth was extracted—"a large osseous deposit was found on the fang"—and the patient was relieved.

We are by no means prepared to assent to this opinion of Mr. F.—that two thirds of the cases of facial neuralgia proceed from the causes above mentioned; nor are we disposed to controvert his position; for it is very difficult, in a disease the cause of which has been admitted by all writers on the subject to be so obscure, to fix any proportion of the kind. It will certainly require much additional evidence to establish the truth of his position. Doubtless however, he is correct in as far as he supposes some cases to be attributable to such cause; aud we can give a case which we consider in point.

In the early part of July last, before the number of the Journal containing Mr. F.'s article was published, we were called to see Sidney, a negro girl, belonging to a gentleman of this city, who had been suffering a day or two with a severe "pain in her face." She is about 20 years old, stout, and has been always healthy, save that recently she has suffered with some slight catamenial derangement. At the time we were called to see her, there was no derangement of her general health, and she complained only of pain in the left side of her face, which was most severe about the articulation of the jaw, and extended anteriorly to the angle of the mouth, and nearly to the nose—above, a short distance

upon the side of the head, and below, upon the neck as far back as the edge of the trapezius muscle, and nearly down to the point of the shoulder. It was paroxysmal in its character—was much the most severe at night—and unattended by any febrile excitement, tumefaction, heat, &c., showing it to be clearly a case of neuralgia, and not of rheumatism. A purgative had been given before we saw her, and we directed strong counter-irritation by means of a small blister by the concentrated spts. ammon. over the root of the facial nerve; and 10 drops of the acet. tinct. of opium, to be repeated as might be necessary.

This treatment was continued for several days, and the severity of the paroxysms was somewhat mitigated by the repetition of the circumscribed blister, which was generally drawn in two or three minutes; but no material improvement was effected, and she was directed to rub the face frequently and freely with veratria ointment, containing fifteen grains to two drachms of lard. Several days elapsed with no relief, save the temporary mitigation of pain by the blister; and a pill containing the twelfth of a grain of veratria was directed to be taken every four hours, together with a continuation of the ointment, &c. This treatment was kept up until the twelfth or fourteenth day of the attack, without any additional amendment, when upon examining her mouth we found several decayed teeth in both the upper and lower jaw of the affected side. Thinking that possibly the condition of the teeth might have caused some irritation of the second or third branch of the fifth pair of nerves, which could be transmitted to the portio dura by the free and anastamosis existing between them, and thus have produced the neuralgia, we sent her to a dentist, who found that some pain was produced in several of the decayed teeth by tapping on them.

and severe pain in the first molar of the upper jaw by the same means. He extracted the tooth, and found at the extremity of its root a sac about the size of a pea, which had been filled with pus, but was ruptured by the operation. The root itself was carious; so also were several fangs that were extracted. Some soreness remained for several days, but about six weeks have elapsed, and she has had no return of the neuralgia.

September 10*th*, 1840.

ART. II.—*Stramonium in Dysmenorrhœa.* By Dr. T. J. COGLEY, of Mount Vernon, Ohio.

MRS. S., æt. seventeen years, commenced menstruating at fourteen. Had not the slightest difficulty during the first three periods, but during the fourth period she was exposed to cold, and the discharge was checked. From this time she was much afflicted with dysmenorrhœa at each period; but married soon after she was fifteen. This event seemed to augment the disease very much, and violent hysteria soon supervened, before each menstrual period. Every few months she had an attack of hysterical *convulsions*, and when she had no convulsions, experienced extreme difficulty in menstruating. She did not come under my notice until the 12th of May, 1840, when I found her laboring under all the distressing symptoms of dysmenorrhœa. I prescribed camphor in 10 gr. doses every hour, for three hours, without the least mitigation of the pain, which was excruciatingly severe. I next resorted to sulphate of morphia, the warm bath and venesec-

tion; but, although the morphia was given in large and repeated doses, she continued to have the most violent convulsions I have ever witnessed for forty-eight hours, when I commenced the administration of stramonium. I gave the pulverized seeds, in large doses every four hours, until her pupils were greatly dilated, when the convulsions began to subside, and the menstrual discharge became more copious. During this administration I prescribed frequent enemata of simple warm water. Her senses speedily returned, and in a few days she was in ordinary health.

Believing that irritation existed in the cervical vertebræ, some time after the above attack I cupped her, on the back of the neck and between the shoulders, and afterwards applied an epispastic. About five days before the return of the menses in June, I gave her an active cathartic of ex. col. comp., after the operation of which, I again put her upon the use of the stramonium in substance, in such doses as to dilate the pupils considerably. The patient was kept in this condition, on low diet, until the catamenia returned, which was about five weeks from the last period. The discharge was more copious, and attended with less pain, than at any former period, except the three first above mentioned. During the next interval the patient was kept on low diet, and a short time before the expected return of the menses, in July, she was bled for pain in the head, and again put under the influence of the stramonium as above. The discharge came on this time in about thirty-one days, and was attended with but little discomfort. It may be thought, that the venesection, cupping, blistering and cathartics, effected as much perhaps, as the stramonium. But I think not; as they had been frequently prescribed, on former occasions, by other physicians. Before she came under my notice, the tinct. guiacum, oil of

savin, and various other articles had been ineffectually tried, but particularly the first.

Having used the stramonium with more or less success, in at least six cases, I am induced to look upon it as one of the most efficient remedies we have in dysmenorrhæa. But the system must be prepared for its reception. It being, in my opinion, contra-indicated wherever there is a plethoric, or an inflammatory condition. These preparatory measures may be thought to have had some agency in ameliorating the disease, but I have often seen them fail, while on the other hand I have used the stramonium without its being preceded by venesection or catharsis. Where there is a plethoric state of the system it undoubtedly enhances its sanative effects, to premise venesection and catharsis, particularly the latter. It must be prescribed as above, at each successive menstrual period, until the dysmenorrhœa is entirely removed, or the woman becomes pregnant.

August, 1840.

ART. III.—*Facts and Remarks on the Sensibility to Caloric.* By THOMAS TOWNSEND, M. D., of Wheeling Va.

DARWIN, in the first volume of his Zoonomia, Sec. XIV., after speaking of the universal distribution of heat through all bodies in nature, suggests the idea that there may be, and probably is, a separate set of nerves from those of touch to distinguish heat. "There is no circumstance," says he, "of more consequence in the animal economy than a due proportion of this fluid of heat; the digestion of our nutriment in the

stomach and bowels, and the proper qualities of all our secreted fluids being produced or prepared partly by animal and partly by chemical processes, depend much on the quantity of heat; the excess of which or its deficiency alike gives us pain, and induces us to avoid the circumstances that occasion them. And in this the perception of heat essentially differs from the perception of the sense of touch, as we receive pain from too great pressure of solid bodies, but none from the absence of it. It is hence probable, that nature has provided us with a separate set of nerves for the perception of this fluid, which anatomists have not yet attended to."

In confirmation of this supposition he says: "If we look at a hot fire, we experience no pain in the optic nerve, though the heat along with the light must be concentrated upon it, nor does warm oil or warm water poured into the ear give pain to that organ; and hence their organs do not perceive small excesses or deficiencies of heat." He thinks that heat has no greater analogy to the solidity or figure of bodies than to their color or vibrations, and that there is not sufficient reason for our ascribing the perception of heat and cold to the sense of touch, to which it has generally been attributed.

"There is another circumstance," he says, "wonld induce us to believe, that the perception of heat and cold do not belong to the organ of touch; since the teeth, which are the least adapted for the perception of solidity or figure, are the most sensible to heat or cold; hence we are forewarned from swallowing those materials, whose degree of heat or coldness would injure our stomachs. * * * The lungs are not sensible to heat and cold."

Darwin then gives the following extract of a letter of his relation Dr. R. W. Darwin, of Shrewberry, when a student

at Edinburgh: "I made an experiment yesterday in our hospital, which much favors your opinion, that the sensations of heat and touch depend on different sets of nerves. A man who had lately recovered from fever, and was still weak was seized with violent cramps in his legs and feet; which were removed by opiates, except that one of his feet remained insensible. Mr. Ewart pricked him with a pin in five or six places, and the patient declared that he did not feel it in the least, nor was he sensible of a very smart pinch. I then held a red hot poker at some distance, and brought it gradually nearer, till it came within three inches, when he asserted that he felt it quite distinctly."

In the year 1812, when I was a student with Dr. M'Namee, of Vincennes, Indiana, Judge Vanderburg of that place was attacked with general palsy which came on slowly, but at length he lost the power of his limbs and became confined to bed. Dr. M'Namee was his attending physician, and Dr. Scull, formerly of Pittsburgh, consulting physician. During the time they were using electricity as one of their remedial agents, I solicited them to make Darwin's experiment, for the purpose of ascertaining whether the Judge could distinguish heat, after having lost the sense of touch together with the power of muscular motion. To this they assented.

The Judge lay in a room, the door of which, was opposite to the foot of his bed. He was not informed of the intended experiment. For the experiment the bedclothes were thrown from his feet and legs upon his breast so high that he could not see as low as the top of the door, and consequently could not see the entrance of the servant who brought in the fire. The feet and legs being thus uncovered were first pricked with a pin, and then pinched as hard as was consistent with humanity, and he declared he felt nothing. Then a sig-

nal was given and a servant entered with a shovel of hot coals. This was brought within twelve or fifteen inches of his feet and legs, when he immediately exclaimed, What, what! What is that, that is so warm?

This experiment clearly showed that the power of perceiving heat remained unimpaired, notwithstanding there was an entire loss of the sense of touch or feeling, and the power of muscular motion or volition, and went to confirm the opinion of Darwin, that there are separate sets of nerves for these separate functions.

Since the time of Darwin, and since the experiment of Drs. M'Namee and Scull, Sir Charles Bell has, by dissections and experiments, most satisfactorily demonstrated the existence of separate sets of nerves for separate and specific functions besides hearing, seeing, and smelling. He has shown that one set ministers to the function of what he calls common sensation, that is, touch. Another to the function of muscular motion, that is, volition, and another to the function of associating the apparatus of respiration with all other parts of the body. This additional knowledge on the physiology of the nervous system affords strong analogy in favor of the supposition that there may be, and probably is, a separate set of nerves for distinguishing heat.

In August, 1835, James Howell, of Wheeling, Virginia, was attacked with cholera morbus six or seven miles from town, from which he soon recovered and returned to his residence. A day or two after his return he was suddenly seized with a paralysis. When I visited him he complained of feeling "dead," as he expressed it. Mr. Howell had not lost all muscular power; he could move his hands and arms a little, and make some ineffectual efforts to turn himself in bed. He soon recovered from this and was able to walk. But he made

the discovery that he could not feel any heat. He said that he "felt all the time as cold as ice"—that when he came to the fire he could not tell by his sense of feeling when he was warm, or whether he was burning. At a time when he said his feet and legs felt "as cold as ice," I put my hand on them and they felt to me as warm as the flesh of ordinary persons.

To-day, July 27, 1840, Mr. Howell called on me, when I read him the foregoing paragraph, and he said it was strictly true. He moreover stated, that from the back part of his head down the whole length of his spine, he feels all the time cold, and from the calf of his legs down he feels no heat. I felt his skin again, and it was to my hand as warm as that of any other person. He farther stated, that from 1835 to the present time, he has had great weakness of his hands and arms, and frequently can scarcely use his knife and fork in eating, and that he is subject to frequent cramps in his legs.

This case is the opposite of that of Judge Vanderburg, of Vincennes, who retained the power of distinguishing heat after that of muscular motion and of touch or feeling was lost. Mr. Howell retains to a considerable extent the power of muscular motion and feeling, while the ability to distinguish or perceive heat is lost.

I think that physiological facts like these, as suitable cases may present themselves, ought to be recorded for the purpose of leading to farther observations.

The truth of Mr. Howell's case depends on his own veracity, and, so far as I know, there is no one in Wheeling who will doubt it. But I have had no opportunity to make any experiment on him during sleep for the purpose of testing it.

August, 1840.

ART. IV.—*Intermittent Fever, Hepatitis, Pneumonitis, Laryngitis and Intestinal Mucous Irritation.* By DANIEL DRAKE, M. D., Professor of Clinical Medicine and Pathological Anatomy in the Medical Institute of Louisville.

WE have written down these words to draw the reader's attention to a case which this day fell under our observation. We do not claim for it any *very* remarkable character, but as it is perhaps equal in interest to much that is published in medical journals we venture to send it forth.

Edward Dykes, a laboring man, living in the valley of Salt Creek, Chillicothe, Ohio, aged 32, of a sanguine temperament, and free from tubercular or other hereditary taint, was attacked about sixteen years ago, in autumn, with ague and fever, which lasted two months. For the next fourteen years it returned almost every atumn. During that long period, he continued most of the year to labor, and was free from cough, but sometimes had irritable bowels with slight diarrhœa.

In August, 1838, he was seized with the malady which had so often attacked him before. The type was at first tertian, and the cold stage amounted to a shake; at length became quotidian, with a chill only, about six o'clock, P. M. He continued to go about. Living with a "steam-doctor," he took two profuse sweats, and after the second "caught cold," and began to cough; at first without pain, but at length that symptom set in—being "located" in the right hypochondrium. His expectoration was sparing. He took two vomits of ipecac. but was neither bled nor blistered. Throughout the whole of the following winter, 1838, '39 he continued to have an evening chill, followed by fever in the early, and sweats in the latter part of the night, and frequent attacks

of diarrhœa. His cough still continued with little expectoration. His larynx became somewhat sore and his voice and cough hoarse and flat, which sounds have continued ever since. Much eating brought on fits of coughing, and these brought up, by exciting a retrograde œsophageal action, the food which oppressed his stomach. Throughout the whole of the year 1839, these symptoms, including the evening chill, continued to return upon him, but he still kept on his feet, and did not become very much emaciated. In the month of January last, 1840, he awoke in the morning with severe pain extending from the clavicle to the short ribs on the right side, with sense of suffocation, and a new reduction of the powers of his voice. He was bled, cupped, blistered and took expectorants; under which the symptoms rapidly abated. Since that time he has not had evening chills, nor morning sweats; though he thinks his feet and hands hot at night; but his diarrhœa has continued. He has from five to eight evacuations daily. The discharges in the forenoon, often appearing to have received a tinge from the food he had taken the day before, but frequently of a light hue. In the afternoon they are small in quantity and attended with tenesmus, and very commonly have the appearance of "matter from a sore," which has been the case for eighteen months. His urine is often saffron colored. His cough is slight and his expectoration extremely limited. Twice or thrice lately the mucus has been tinged with blood.

At this time he has a moderately furred tongue, natural in size and color. His eyes although a little turbid, are not jaundiced. His skin generally is reduced in whiteness, but that of his face is dark and sallow, nearly up to his hair. The ends or balls of his fingers are a little enlarged. His pulse is 76, quiet and regular—not hard.

Examination of the Neck and Chest.—Larynx with a tender spot on the right side, within the thyroid cartilage. Os hyoides exceedingly moveable. A grating sound when the larynx is moved by the hand. Chest, when examined, naked and in quiet respiration, well formed, except a little bulging out of the most convex part of the false ribs, of the right side; which side, however, has the same circuit with the left both there and above. Breathing chiefly diaphragmatic. When directed to make a deep inspiration, his left shoulder ascends and the ribs rise and bulge out; but the right remains unmoved. When a cord was passed round the body, with its middle pressed upon one of the spinous processes, and the ends were brought to the sternum, a deep breath rendered the last extremity too short, but there was no recession of the right end. Under percussion no hollowness was discovered over any part of the right lung or of the *sternum*, either in the erect or recumbent position—the hollow sound of the left side was rather greater than common. Auscultation could detect no respiratory murmur, anywhere over the right side; but disclosed a considerable degree of broncophony with an occasional sibilant ronchus. His respiration throughout the left lung was puerile.

The position and movements of his heart were natural.

Percussion, pressure and deep inspirations excited very little cough.

Examination of the Abdomen.—No enlargement of the spleen or liver; no tenderness in the region of the former, but decided soreness in the latter, extending into the epigastrium. General soreness on pressure over the abdomen, but especially across it, in a zone passing a little below the umbilicus. Soreness in both iliac regions, extending upwards and backwards, towards the hypocondriac and lumbar regions.

Slight general fulness of the abdomen—more or less pain—and considerable flatulence.

Examination of the Spine.—No tenderness except near the junction of the vertebræ with the sternum. No tendency to cough from pressure.

For some time preferred to lie on his left side—now lies easier on his right; walks and rides about, and thinks himself much better than he was last winter.

The recurrence of ague and fever upon this patient, through such a long term of years, is not unprecedented, as such things have happened before in the alluvial valleys of the West; but the transition which occurred in the autumn of 1838, from misamatic, to pseudo-hectic fever is a phenomenon not often seen. The tertian character and the shake of the annual attack of that autumn, seem clearly to characterize it as of malarious origin; and, moreover, he had at that time no cough nor other pulmonary difficulty, as far as we could gather from him. But at length he became affected with a double tertian or quotidian, and while this was still returning upon him, pneumonitis of a mild kind set in, and soon afterwards night sweats began, and with the chill and nocturnal fever continued for twelve or fourteen months; when in January, 1840, he seems to have had a re-inforcement of the pneumonic inflammation. Thus we have before us a series of little interruption, for eighteen months, commencing as an endemic *ague and fever* and ending as well marked *hectic*, with a transition from one to the other, in the most imperceptible manner. Still further, the fever assumed a hectic character, while the pulmonary affection was yet too recent, according to common experience, to have produced it. It appears from this case, that a miasmatic fever has not the

power to ward off a hectic, notwithstanding that opinion has had its advocates. Did not indeed the existence of a chronic intermittent, at the time the pneumonitis set in, facilitate the development of hectic—a paroxysmal fever with an evening chill, *naturally*, recurring at the same hour, which in him was the hour of recurrence of the mismatic chill? Did not the two modes of constitutional mordid action, notwithstanding the difference in their origin, so much resemble each other, as to coalesce? When, in singing, we open the mouth in the *manner* it is opened in yawning, that function is apt to be performed, although the condition which naturally prompts it is not present. But we shall not speculate further on this connexion, but request such of our readers as live in regions where ague is endemic, to keep on the look out for facts having a bearing on its relations with hectic fever.

What is the morbid anatomy of the lungs of this patient? The left is sound and sustains the *onus* of respiration. The right would appear to be impervious throughout, at least in its vesicular structure. The larger bronchial ramifications, only, admit air. How long it has been thus hepatized cannot be ascertained. From the general state of feeling of that side, and the condition of his pulse, it would appear that the inflammation had nearly ceased. Has the secretion into the parenchyma, been so great as to obliterate the capillary system to such an extent, that the inflammation ceased? May not a lung continue a long time in that condition, as it often does in a state of induration, from the compression of coagulable lymph, contracting around it? We have certainly met with cases of hepatized lung, connected with mild occasional hectic fever, which have continued for several years; and we may suppose that some very chronic cases which were regarded as tubercular have been of this kind.

The laryngeal affection in this case is distinctly marked. The relaxation of all the ligaments and muscles is indicated by the looseness of structure of that organ, and the play of the os hyoides upon it; not less than by the feebleness and flatness of the voice and cough. It is not impossible that the mucous membrane of the right side is in a state of superficial ulceration. The tinge of blood which he lately threw up perhaps came from such a spot. Whatever may be the exact pathology of this organ, it is, perhaps, sympathetic of the disease in the right lung.

Let us turn our attention to the abdominal viscera. It is worthy of note, that notwithstanding the repetition of ague for many successive years, the spleen is not enlarged; and we may here say, what should have been said before—there is no anasarcous infiltration into the extremities.

The liver is undoubtedly in a state of chronic inflammation. The tenderness under pressure, the occasional saffron color of the urine, the turbid and sallow hue of the skin, the early tendency to diarrhœa, the tenderness *in epigastrio*, and the cough with regurgitation, after a full meal, may be received as evidence of disorder of the liver. The preference for lying on the right side is ambiguous, inasmuch, as the great amount of respiratory duty, thrown upon the left lung, requires that the weight of the body should not rest on that side. But what shall be said of the bulging out of the false ribs over the liver? Was there a swelling, inflammation and abcess of that organ, some time ago, which pressed out and changed the convexity of those ribs? Is the liver at this time enlarged *upward and outward?* Is there a collection of pus in the sac of the pleura, resting upon the diaphragm? If so, there must be adhesion of the membrane above, for the protuberance is as great in a recumbent, as upright posture.

At this time, and indeed, for many months the more energetic morbid *actions* in this case, seem to be in the mucous membrane, more especially, perhaps, that of the great intestines. We did not see the discharge which the patient described as purulent, but presume they may be of that character. Are they from the liver, or from the intestinal membrane? The latter is most probable; and taken in connexion with the general abdominal tenderness, and the tenesmus, can leave little doubt of ulceration—probably in various places. Has this condition of the membrane arisen directly from the ague and fever; or is it a sympathetic effect of the liver disease; or has it come on in the way it arises in the progress of hectic fever from tubercle?

We shall conclude these off-hand pathological speculations with a few clinical remarks and suggestions.

It appears to us, that the right lung had passed through a transformation, and that although it will doubtless, at no distant time, be the seat of a revived and suppurative inflammation of a fatal kind, there was not any existing morbid action upon which remedies need to be directed, or, indeed, could be, if morbid *action* did exist. Our thoughts turned to the state of the liver, and especially the intestinal membrane, both of which, at the present moment, seem to be the seats of sub-acute inflammatory action. Although, however, we have called the action *inflammatory* we cannot regard it of such a grade, as to call for depletion. Moreover, there seem to be several objections to a depleting plan. 1st. The pulse is not hard nor frequent. 2d. An organic lesion, so extensive as that in the lungs, renders debilitating measures, to any degree, injurious. 3d. Ulceration of the bowels may be prevented by depletion, but it by no means follows that it can be cured by the same mode. Ulcers of the skin, of the va-

gina and uretha, of the meatus externus, of the conjunctiva, of the mouth and throat, especially when chronic, are not in general successfully treated with emollients and refrigerants, but with stimulants, astringents and escharotics, and often heal more kindly, if tonics be administered internally at the same time; wherefore should chronic ulcers of the colon and rectum be made an exception to these, and the patient subjected to a debilitating treatment? 4th. This patient for several weeks past, has been using a bitter tincture, made with whiskey, during which time there has been no aggravation of any of his symptoms, but an increase of flesh and strength.

Under these views we made the following prescription:—

1. A liquid, demulcent and gelatinous diet—in moderation.

2. The nitro-muriatic bath, to the region of the liver, epigastrium and umbilicus, every night.

3. A draught, three times a day, of ℥ij. of decoction of cinchona, and ℥ij. of lime water, mixed.

4. A pill every night, composed of two grains blue-mass, two of ipecac. and one of opium.

Are we asked, do you expect the final recovery of the patient under this or any other treatment? We answer no.

To such of our readers as may think their time lost by the perusal of this article, we beg leave to say, that the afternoon (July 29) is oppressively hot; and that, if we were writing in as pleasant weather as they will read, we should no doubt forestall them in that criticism.

REVIEWS.

Art. V.—1. *A Memoir of the Life and Character of Philip Syng Physick, M. D.* By J. Randloph, M. D., Lecturer on Surgery, Member of the American Philosophical Society, etc., etc. Philadelphia: T. K. & P. G. Collins. 1839. 8vo. pp. 114.

2. *Necrological Notice of Dr. Philip Syng Physick; delivered before the American Philosophical Society, May 4th,* 1838. By W. E. Horner, M. D., Professor of Anatomy in the University of Pennsylvania, etc., etc. Philadelphia: Haswell, Barrington & Haswell. 1838. 8vo. pp. 32.

The biography of Dr. Physick possesses no uncommon interest, if we estimate it by the incidents which it affords. Yet it is a biography which, on account of the celebrity of the individual, will be extensively read, and which is calculated to exercise a most excellent influence upon the young men of the profession of which he was for many years the acknowledged head and centre in America. Dr. Physick was reputed, and we believe justly, a great man—as a Surgeon pre-eminently great; but his greatness was of a kind which does not oppress or alarm the beholder, but rather inspires him with a hope that he may attain to something like it, because it was the result of industry long directed to a single great object. It was a greatness, too, which we may admire without any painful abatement on the score of mingling

weaknesses. It was alloyed by no base quality. The lustre of his long life, passed before the public eye, was tarnished by no vice. Still, in contemplating his character, we find nothing extraordinary about him, but his extraordinary skill in surgery, and this he owed to a life of the greatest pains-taking. His character was cast in the common mould, and his superiority was the growth of time, and appplication, and the sound moral culture which he received from exemplary parents, especially a pious mother. It is one, therefore, which we may study with decided profit, for it is of such worthies that it is especially true, that

> "The lives of great men all remind us
> We may make our lives sublime,
> And departing leave behind us
> Footsteps on the sands of time;
> Footsteps, that perhaps another,
> Sailing o'er life's solemn main,
> A forlorn and shipwrecked brother,
> Seeing, shall take heart again."

Dr. Physick was born in Philadelphia, on the 7th of July, 1768, of respectable parents. His father, an Englishman by birth, was a man of strong, sagacious mind, and strict integrity of principle. His mother was a pious and highly estimable woman, with a sound judgment, and great decision of character, in which qualities she was strongly resembled by her son. Having taken the degree of Bachelor of Arts in the collegiate department of the University of Pennsylvania, it became necessary that he should make choice of a profession. The mechanical turn for which he became so remarkable in his profession had early shown itself in his character, and he declared his preference for the trade of a silversmith, in which, fortunately for the interests of science and humanity, he was over-ruled by an inflexible father, who placed him

under the care of Dr. Adam Kuhn to study medicine. It is said that Mr. Physick was led to this choice by the skill which his son displayed in applying the bandage and dressings to his finger, which he had wounded whilst handling a knife. But his son seems never to have lost, even amid his most brilliant successes, this early inclination to mechanical pursuits. Dr. Horner relates, that

"Even within a short time of his death, in reflecting upon the events of his life, such as his anxieties for the health of others, his professional excitements, and the decrepitude and ravages made on his own constitution by disease, he regretted that he had not been indulged in his love for the business of a silversmith: his impression was that in securing to himself health and tranquil employment, his life would have been much happier, and a very sufficient measure of success would have attended his efforts."

Cullen's first Lines of the Practice of Physic was the book of the highest reputation at that day, and was handed to him by his venerated preceptor with such commendations that he was induced to commit it to memory—a feat, we presume, which has not often been performed since, and which it may safely be predicted will never occur again. The first experience of the young surgeon gave no promise of that coolness and self-control to which he afterwards attained, for the boiling of a skeleton, which he was called to witness, is reported to have excited in him so strong a disgust to the profession of medicine, that he renewed his entreaties to his father to permit him to become a silversmith. On another occasion, while witnessing an amputation, at the Pennsylvania Hospital, he became so sick that his father, who was present, was obliged to lead him from the amphitheatre before the operation was concluded. These incidents in the life of the Father of American Surgery will, doubtless, console and encourage

many a pupil who may be compelled, by a like infirmity, to retreat from the first operation of his first winter, amid the ridicule of his less sensitive class-mates.

Dr. Physick having continued to prosecute his studies under the direction of Dr. Kuhn for three years, during which time he also attended the medical lectures delivered in the University of Pennsylvania, embarked for Europe in November, 1788, when twenty years of age, for the purpose of completing his education in the great schools and hospitals of London and Edinburgh. In visiting Europe, his sole purpose was the acquisition of medical knowledge. No other object shared with this in his attention. No pleasure was seductive enough to lure him from his studies. He was fortunate in securing the services of John Hunter as a preceptor, and more fortunate in imbibing the spirit of his great master. Mr. Hunter, it is well known, was no great student of the writings of others, but he was indefatigable in the industry with which he pursued his original reseaches with the dissecting knife; and it was under his auspices that Dr. Physick acquired that minute knowledge of anatomy to which he afterwards owed his unrivalled reputation as a surgeon. The following anecdote related by Dr. Horner, is strikingly characteristic of Mr. Hunter, and shows the bias which determined the future career of his pupil.

"The affair being settled that young Mr. Physick was to study under him, the elder Mr. Physick said, 'Well, sir, I presume some books will be required for my son, I will thank you to mention them that I may get them.' 'Here, sir,' says Mr. Hunter, 'follow me; I will show the books your son has to study.' Mr. Hunter led the way from his study to his dissecting-room, and entering it pointed to several dead bodies; 'These are the books,' said he, 'which your son will learn under my direction; the others are fit for very little.' The impression made on the mind of Dr. Physick was durable;

he never forgot the remark, especially after committing to memory Cullen's First Lines, as he had done but a short time before in Philadelphia."

From this period forward, Dr. Physick seems to have read little of books, but, like his preceptor, to have relied upon his own personal observation in the dissecting-room, and at the bed side of the sick, for a knowledge of the nature and treatment of disease. Two years after entering upon his apprenticeship with Mr. Hunter, we find him elected house surgeon to St. George's Hospital, which post he obtained over a number of competitors, chiefly through the influence of Mr. Hunter. His success very naturally caused some dissatisfaction among the disappointed applicants, who conceived that their claims for the situation were stronger than those of the young foreigner.

"In consequence of this, Dr. Physick clearly perceived that they evinced an uncommon share of curiosity respecting the manner in which he discharged his duties, and that they were disposed to scrutinize his actions with the greatest strictness. A short period after commencing his services, a patient was admitted into the hospital who had had the misfortune to dislocate his shoulder; the head of the humerus was thrown downward, and loged in the axilla. Fortunately, the accident was quite recent. It so happened that at the time the man was admitted the whole class were in attendance at the house. They, of course, were exceedingly anxious to witness the manner in which the reduction would be effected, and Dr. Physick was perfectly well aware that his method of restoring the bone to its natural situation would be subjected to severe criticism. He directed the patient to be seated upon a high chair; he then proceeded to examine the injured shoulder very particularly, and questioned the man as to the manner in which the accident had occurred. Whilst making these inquiries he placed his left hand in the axilla, and taking hold of the lower end of the humerus with his right hand, he made all the extension in his power; he then suddenly depressed the elbow of the patient to the side of his body, and in so doing, dislodged the head of the bone, which glided in-

stantaneously into the glenoid cavity, very much to his own delight, and doubtless also to the perfect satisfaction of the class."—*Memoir, p.* 24.

In 1791 he received his diploma from the Royal College of Surgeons in London, and after spending a winter in the University of Edinburgh took the degree of Doctor of Medicine in 1792. So high an opinion had Mr. Hunter by this time conceived of his qualifications, that he invited him to take up his residence with him, to become an inmate of his house, and to establish himself permanently in London to pursue the practice of his profession. An apprehension that the climate and atmosphere of that city might injure his health, is said to have been the principal cause in determining him to decline so an advantageous an offer. Returning home the same year, he commenced the practice of physic in Philadelphia, with only two shillings and sixpence in his pocket. His father, having qualified him for usefulness and distinction, said to him, "My son, you have cost me much money; you have now an outfit, learn to take care of yourself." But with all his advantages, as well of person as of education, he was slow in getting into business, and was so discouraged after more than a year of fruitless probation, that he declared he would have sold the fee simple of his profession for a thousand pounds, have retired into the country, and never again have felt a pulse in the capacity of a physician. "I walked the pavements of Philadelphia," said he to Dr. Caldwell, "after my return from Europe, for nearly three years, without making as much by my practice as put soles on my shoes."* In this state of affairs he felt constrained to resort to the following expedient, which was the beginning of the great business to which he at length attained.

* Caldwell's Eulogy of Physick.

"Many of his hours," says Dr. Horner, "were spent, by invitation in a fine library belonging to a Mr. Priestman. He on one occasion said to Mr. P., 'I should feel much more happy, if I had something like a certain livelihood: if your family and some others would give me, at any rate, twenty dollars a year, each, for acting as their physician, I should be satisfied.' Mr. Priestman had a very high opinion of him and replied immediately, 'Well, Doctor, I agree to that:' and being a man of influence, he interested several other families in the same way."

After all, it is probable the Doctor indulged in a little pardonable exaggeration to his friend, Dr. Caldwell, in describing the difficulties attending his early practical career, since we find him in 1793, one year after his return from Europe, acting as physician to the Bush Hill Hospital, erected for the accommodation of indigent persons laboring under yellow fever, and one year later risen to be a prescribing physician in the Philadelphia Dispensary, and one of the surgeons to the Pennsylvania Hospital. It is true that these were offices of no immediate profit, but public confidence, according to one of his biographers, kept pace with this promotion, as was exhibited by his practice increasing with no ordinary rapidity. And after his second term of service at this Hospital, in 1798, his zeal and fidelity were recognized in the presentation of some elegant pieces of silver plate by the Board of Managers. Of the firmness and moral courage displayed by him in the midst of this epidemic; of the self-sacrificing spirit which animated him, in common with his medical brethren, whilst others were flying from the danger, the following anecdote related by Dr. Horner affords a striking example:

"Dr. Physick having offered his services, was chosen physician of the Bush Hill Hospital. He left his lodgings in town, entered immediately upon his new duties, and continued in the exercise of them till the disease had passed away. While on this duty, a disposition to insubordination and riot having

been exhibited by the inmates of the hospital, he was appointed alderman by Governor Mifflin, so as to meet any emergency with the promptest attention and vigor. An explanation of this civil magistracy may be given, by stating that such was the panic created by the yellow fever, that no ordinary civil officer could be found hardy enough, to enter the hospital to enforce order. I have repeatedly heard the Doctor say, that when he was sworn in by the Mayor (Matthew Clarkson,) the latter held off from the precincts of the hospital, and from Dr. Physick, at the greatest distance compatible with hearing, and was happy to be off as soon as possible, when the ceremony was over."

His constant exposure to the poison brought on an attack of the fever; and in 1797 he experienced a second attack, during which, it is stated by Dr. Rush, Dr. Dewees took from him one hundred and seventy-six ounces of blood. The disease brought him near to the grave.

"He told me," says Dr. Horner, "that, as he lay ill, he could hear through his windows, which were open, a stout blacksmith, who lived near, inquire daily of his black waiter, is your master dead yet?" To which the monotonous response of "No!" was as often given. When the Doctor recovered sufficiently to leave the house, he inquired after the blacksmith who had so frequently saluted his ears with this disagreeable question. He found that the blacksmith himself, had in the mean time been one of the victims of the epidemic."

He made many post mortem examinations during the prevalence of the epidemic, and arrived at the conclusion of which so much has since been made by Broussais, that yellow fever has its origin in gastritis. The establishment of the fact, that the disease was of an inflammatory character was a most important service for the profession, as it confirmed the superiority of the anti-phlogistic treatment over the opposite which had generally prevailed. It may be pronounced a great discovery, and it certainly confers no little renown upon

Dr. Physick that he was instrumental in bringing about one of the most salutary revolutions known in the history of practical medicine. Nor did he render a much less important service in contending with Dr. Caldwell, then, like himself a young practitioner in the city of Philadelphia, against the high authority of Dr. Rush, for the non-contagious character of this fever.

In 1797 was performed his first operation for stone in the bladder, which derives interest from the circumstance, that in making it his gorget divided the internal pudic artery. The hemorrhage from the wounded vessel was alarmingly profuse. Dr. Randolph describes his procedure in the emergency.

"He immediately compressed the trunk of the artery with the fore finger of his left hand, and then passed the point of a tenaculum under it, a ligature was then cast round it and firmly tied. This of course arrested the hemorrhage, but the ligature included along with the artery a considerable portion of the adjacent flesh. In order to obviate this inconvenience Dr. Physick subsequently contrived his celebrated forceps and needle for the purpose of carrying a ligature under the pudic artery."

He was married in 1800 to Miss Emlen, the daughter of a gentleman of learning, distinction and wealth, who belonged to the society of Friends. Mrs. Physick died in 1820, leaving four children, now alive—two sons and two daughters. In the same year, he was invited by a number of the medical students of the University of Pennsylvania to lecture to them on Surgery. He acceded to their wishes, and in doing so, how great he felt the resposibility to be, and how zealously he labored to acquit himself well, the following anecdote related by Dr. Randolph, will testify:

"After preparing the lecture introductory to his course, he committed it to memory. Among the persons invited to be

present at its delivery was his valued friend, Dr. Rush. The scene was a trying one to Dr. Physick. It was the first time he had ever publicly addressed an audience. At the close of the lecture, Dr. Rush stepped up to him and gave him his hand, and congratulated him upon his success. He then said to him emphatically, 'Doctor, that will do—that will do. You need not be apprehensive as to the result of your lecturing—I am sure you will succeed.' Dr. Physick never forgot Dr. Rush's kind manner to him on this occasion. He assured me that it exerted a considerable influence in strengthening and confirming his resolutions to persevere.

It was not until five years afterwards that he was called to the chair of Surgery in the University, to aid his friend Rush in carrying that school to a pitch of popularity which few institutions have exceeded. Dr. Randolph says:

"At the period when Dr. Physick commenced his professional career the organization of the medical department in the University of Pennsylvania was so imperfect, that the chairs of Anatomy and Surgery were combined, and the duties of teaching both branches devolved upon one Professor. In order to remedy this acknowledged deficiency, in the year 1805, the chair of Surgery was made distinct from that of Anatomy, and Dr. Physick was elected, I believe unanimously, Professor of Surgery."

In the mean time he had been elected Surgeon Extraordinary in the Philadelphia Alms House, and a member of the American Philosophical Society.

At this period of his life his habits were remarkably laborious.

"He has frequently told me," says Dr. Randolph, "that it was his custom, throughout the winter months, to rise at four o'clock in the morning. This hour being too early to disturb a servant, he was obliged to arrange his own fire. He would then sit down to his desk, and prepare his lecture for the day; after which he would dress himself, and then take his breakfast, and leave his house between eight and nine o'clock, in order to attend to a most extensive and laborious practice. In addition to this, he discharged his du-

ties as Surgeon to the Pennsylvania Hospital, and to the Alms House Infirmary. He used often to remark, that in order to obtain entire success as a practitioner of medicine, it was necessary to work hard. It will be conceded that no portion of his success ever came to him gratuitously; on the contrary, he made laborious exertions to obtain it."

In July, 1819, he resigned the chair of Surgery, and was appointed to that of Anatomy, made vacant in the preceding November by the death of Dr. Dorsey, his favorite nephew. We always regarded this transfer as an unfortunate one both for Dr. Physick and the institution, and we find that such were his own impressions, and those of his most intimate friends. Dr. Randolph says:

"It was always a source of deep regret with Dr. Physick's immediate family and friends, that his comforts in the evening of his days, and whilst laboring under physical infirmities, should be so greatly interrupted by translating him from the chair of Surgery to that of Anatomy. We had positive assurances from himself that the change was contrary to his own wishes and inclination."

In 1821, he was appointed Consulting Surgeon to the Institution for the Blind; in 1822, the Phrenological Society of Philadelphia elected him its President; he was chosen President of the Philadelphia Medical Society in 1824, which office he held to the time of his death; in 1825 he was appointed a Member of the Royal Academy of Medicine of France; and in 1831, he was unanimously elected *Emeritus* Professor of Surgery and Anatomy, having in consequence of declining health retired from the active duties of the University.

In October 1831, he performed the operation of lithotomy on Chief Justice Marshall. The following account of it by Dr. Randolph is interesting:

"The case was attended with singular interest, in consequence of the exalted position of the patient, his advanced age, and the circumstance of there being upward of one thousand calculi taken from his bladder. It is well known that for several years previous to this period, Dr. Physick had declined performing extensive surgical operations. He felt somewhat reluctant to operate on Chief Justice Marshall, and offered to place the case in my hands. Taking all the circumstances into consideration, and knowing well that this would be the last time that he would ever perform a similar operation, I felt desirous that he should finish with so distinguished an individual, and accordingly urged him to do it himself. Upon the day appointed, the Doctor performed the operation with his usual skill and dexterity. I do not think I ever saw him display greater neatness than on that occasion. The result of the operation was complete success."

His last operation was for cataract, which, from a record in his private Journal, seems also to have been his first. It was performed on the 13th of August, 1837, with a steady hand, while he was the subject himself of much mental and physical suffering. He never saw his patient after completing the operation, for the attack which terminated his laborious life occurred on the afternoon of the same day. On the morning of the 15th of December, at twenty minutes past 8 o'clock, the Father of American Surgery expired without a struggle. The immediate cause of his death was probably hydrothorax. For whole nights together he was unable to lie down in his bed, and was supported by assistants standing upon the floor. Anasarca was developed some time previous to his death, and in consequence of being obliged to stand so much upon his feet, his lower extremities became greatly swollen, the integuments gave way, and at length ulcerated and became gangrenous. He died in the 69th year of his age.

It is a little remarkable that he enjoined that no examination should be made of his body after death, and that a rigid

watch should be kept over it for six weeks, during the night, to prevent disinterment.

"So protracted an illness," remarks Dr. Horner, "attended with such suffering, impaired also the vigor and clearness of his mind, and exhibited it not unfrequently in strong contrast with its natural traits. He left a paper directing the disposition of his body after death, as follows: a dissection was absolutely prohibited, no one was to touch him but two females who had been his domestics, for the last twenty years. He was not to be taken from his bed for some time, but to be wrapt up in it warmly; the room was to be kept well warmed till putrefaction commenced. He was then to be covered with flannel, and placed in a wooden coffin, painted outside, with a mattress at the bottom; and this coffin was to be placed within a leaden one, and it soldered up closely. A public notice was to be given of the period of his interment, but no invitation issued."

Dr. Horner's description of his appearance in the prime of life is graphic, and will be read with pleasure:

"Five and twenty years ago, I saw him who is now a mass of decomposition, returning from the same place in the afternoon at the interment of Dr. Rush. He was then in the vigor of manhood and of reputation, the universally acknowledged centre and head of the surgery of this country. An indescribable interval separated him from every body else, and yet attracted every one to him. I remember with perfect distinctness, as he turned off from the ground, his quick and thoughtful step; his inclination of the head: as either musing on what he had seen, or ruminating on some case of profound interest then under his charge. His appearance such as in his most palmy days—his head highly powdered; his hair overhanging his ears in a thick long brush on each side, where it was clipped straight below. The head, face, and neck, exhibiting the most finished and statue-like appearance; and his costume being a paragon of neatness, and of appropriateness, without any undue effort at effect. I never saw him before or since more completely himself. The attack of typhus fever, which he had the next winter, altered sensibly for the remainder of his life, the face—the forehead never recovered its fullness."

As a teacher of surgery Dr. Physick acquired a wide popularity; for the lectures of one whose experience had been so diversified could not be otherwise than instructive, while his character for integrity and strict veracity caused all to be believed which he professed to have done or seen. His manner is described as having been eminently dignified, grave and impressive, without being what is styled eloquent. He seems to have had little imagination, and to have indulged it sparingly. But he was judicious and tasteful; his style was clear, comprehensive, simple and concise. He wrote his lectures out with care, never trusting himself in extemporaneous discourse. His choice of language is represented as having been happy; his person was fine, and his whole air striking and agreeable; from which qualities it resulted that he was a most pleasing as well as instructive teacher. He attempted no display of oratory, but spoke clearly and forcibly from the stores of his memory and the dictates of his sound understanding.

If he had no great veneration for the recorded experience and learning of the profession, he had less disposition to give to the public the results of his own observation and experience; and the student of a future day will search in vain through the medical literature of our country for evidences of that superiority which while living was universally conceded to him. A description of a few surgical instruments invented or improved by himself, and brief histories of a few cases cured by novel modes of treatment, make up the sum total of all that his pen has contributed to the profession. His fame will rest upon what he did—not upon what he wrote. He was one of the first to make post mortem examinations; he introduced the operation of passing a seton between the ends of bones remaining long ununited; he introduced the

animal ligature for arteries; he first recommended the use of blisters for the purpose of arresting the progress of mortification;—the excision of the uvula and of the tonsils in particular cases; the invention of several instruments, and the improvement of more—these are some of the achievements to which he was indebted for his great name. Y.

ART. VI.—*Elements of Pathological Anatomy;* illustrated by numerous engravings, etc. etc. By SAMUEL D. GROSS, M. D. Boston: 1839.

(*Continued from the October No.*)

OUR present number will finish what we have to say on the first part of this comprehensive work.

The second section of the chapter on heterologous formations, is devoted to melanosis. In classing this with those productions, our author has conformed to the prevailing arrangement of pathological anatomists; but, we must confess, that we do not clearly see the propriety of such an assignment. In fact it is made in violation of the great division of morbid structures, into those which are like, and those which are unlike, any of the existing tissues; inasmuch as the melanotic substance seems most closely to resemble, if not indeed to be identical with the brown or black pigment met with in some parts of the body, as a normal element—for example, in the rete mucosum of the negro, and in the choroid. Its

secretion and deposit where it should not be found is, at most, but an *error loci*, and cannot render it a heterologous production. Again—it can scarcely be denounced as malignant, as its history with a few exceptions, shows it to be destitute of the attributes which belong to that class of tumours. And these exceptions, it is probable, are but apparent, the melanotic secretion being, perhaps, associated with spongoid, carcinomatous or tuberculous action. The reference of the melanotic tumour to this or that class of morbid productions is not, however, a matter of much consequence; especially as no rule of practice is founded upon its classification.

In the six or eight pages which our author has devoted to melanosis, he has given to the student a lucid and comprehensive view of its natural, chemical and pathological history. It has been observed in several domestic animals. Professor Gross has seen it repeatedly in the ox, and others have met with it in the dog, cat, rabbit, rat, mouse, and some birds; but the horse has presented it more frequently than other animals, and in larger masses. White horses are oftener affected than those of any other color; a fact which seems to show, that the coloring matter of the skins of these animals, is developed in the blood, and not being deposited in its proper nidus is accumulated in masses in other parts.

In the human subject, it affects both sexes and all ages, but is far more frequent in the old than the young. In its chemical constitution, melanotic secretion bears much resemblance to black or venous blood; but offers in this respect considerable variety. In its physical characters, it also presents diversities of color and consistence; varying from brown to jet black, and from the consistence of ink to that of fibro-cartilage. When exposed to the action of the atmosphere it dries and becomes brittle. Now and then it is punctiform, or in

dots disseminated over, or rather in a membrane; and at other times it is lamellated; but its more common form is that of globoid masses, which are sometimes solitary, and at others aggravated. These masses generally have an envelope of cellular or serous-like membrane, giving them an encysted appearance. In the opinion of Professor Gross, they are never organized. They cannot be injected, and if they occasionally show the rudiments of a fibrous structure, it must be regarded as cellular substance into which the melanotic matter has been effused.

"When the tumour is developed on the serous surfaces, it frequently presents a pedunculated appearance, like certain polypi of the uterus and the vagina, (Pl. II, Fig. 2.) In such cases it is always surrounded by a distinct cyst, of which it is difficult to say whether it be a new formation, or simply an extension of the natural membrane. There is another variety of melanotic tumour in which the covering seems to be formed by condensed fibrin, effused, in all probability, in consequence of the irritation excited by the presence of the foreign matter. Sometimes the cyst is of considerable thickness, firmly connected with the circumjacent tissues, and furnished with minute vessels; generally, however, it is remarkably thin, soft, flocculent and without the least visible trace of organization. This variety of melanosis occurs most commonly in the liver and the brain. It is extremely rare. Carswell states that he never has seen an instance of it, and Laennec appears to have met with it only twice. I have noticed it several times in the liver of the ox."

The adipose and cellular tissues are most frequently the seats of this deposit. The organs in which it is oftenest found, are the lungs, ovaries and liver. Now and then it is so far a constitutional affection, as that it will appear simultaneously, or in rapid succession, in various parts of the body. This constitutes or indicates the melanotic diathesis of the systematic writers. Three opinions concerning the nature of this diathesis may be sustained. First, that the blood is in fault;

second, that the solids of the body generally have undergone a lesion of their vital properties, and the secretory function is thereby transformed; third, that a single organ has suffered such a lesion, and the others are affected sympathetically. Many facts are wanting to a satisfactory decision of these questions. Mean while we incline to the first opinion.

Of the remote causes which determine the production of melanosis we know very little. We have mentioned that the aged are most liable. A melancholic temperament favors its production. A sudden suppression of the catamenia has been followed by its development. Warm climates are said to present it oftener than cold. Finally, Dr. Hodgkin and Mr. Bransby Cooper have observed it in connexion with scorbutus.

"Melanotic tumors, after having acquired a certain size, generally remain stationary, giving rise to little or no inconvenience, save what results from their bulk and consequent pressure. At times, however, they manifest a disposition to ulcerate, and, when this happens, a most intractable sore is left, with hard, ragged edges, from the surface of which there is a constant discharge of black, inky matter, mixed with blood, pus, or a thin, fetid, ichorous fluid, formed by the surrounding structures. When removed, the most remarkable feature of these tumours is their tendency to re-appear in the neighborhood of the cicatrix, or in some remote organ."

In conclusion we may add that no remedy for melanosis, either topical or constitutional, has yet been discovered.

The third section of our author's chapter on heterologous formations, is devoted to scirrhus and cancer. We shall commence its analysis by transcribing his definition of the former, of which the latter is but a subsequent stage.

"How far the definition which we are about to give is free from objection, must be left to others to determine. Those who are acquainted with the difficulty of the subject will

agree with me at least, that any effort of the kind, although it may only be approximately correct, is much better than none. No lesion can be studied with advantage, unless the student have a proper notion of its nature at the very outset of his examination; and nowhere is this more true than in the disease before us. With these remarks, I proceed to define scirrhus to be a hard, crisp, opaque substance, of a light grayish color, with dull yellowish fibrous intersections, organized, liable to lancinating pain, occurring for the most part after the middle period of life, and passing sooner or later into ulceration."

Scirrhous matter sometimes appears on surfaces in layers, at other times it is infiltrated into a tissue, converting the whole into a lardaceous or pork-like appearance, but more commonly it is deposited in tuberoïd masses, which may vary exceedingly in size, before softening and ulceration take place.

We were lately consulted in two cases of cancer in the face. One, which had nearly destroyed the under lip, was preceded, for a long time, by a small hard scirrhus, which felt like a shot beneath the epithelium of the lip. The other appeared as a circumscribed, scaly, and indurated spot, in the skin of one of the temples. At the time of our inspection, the ulcerated surface was several inches in diameter, and the tuberous granulations of such magnitude, as to present the characters of a spongoïd disease. This patient, an aged man, had some time before placed himself under the care of a *cancer doctress*, who attempted and predicted its cure; but failing to accomplish the object, she changed her diagnosis, and declared that *it could not be cancer or her application would have cured it.* We mention the incident as a diagnostic of that empiricism, which has so firm a hold on the confidence of the victims of this deplorable malady. But a few months before, we had seen a still more revolting, because a more

advanced case of the same disease, in the Louisville Poor House, which, as the patient stated, began as a slight fissure of the lower lip. The mention of these cases reminds us, that all the examples of cancer of the lips and cheeks which we have ever seen, and the number has not been small, were in *men*, and that we have scarcely met with the disease in *women*, in any other parts than the breast and os tincæ. But to return from this digression, we shall extract from our author a paragraph on the most common of the different forms of scirrhus:

"In the tuberoïd variety, the most common, as we have already said, of all the heterologous substances, forms small circumscribed nodules, the number of which, as in the liver, is sometimes very great, and the consistence of which varies between fresh pork and fibro-cartilage. Their size and shape are much influenced by the nature of the tissues in which they are developed, and by the resistance which is offered to their progress. Single tumours of this kind are rounded, ovoïdal, or conical, when, on the contrary, several are agglomerated together, they are generally very irregular, angular, and more or less lobulated. In their size they vary from a mustard seed to an adult head,—their avarage volume being that of a billiard-ball, a lemon, or an orange."

Scirrhus exerts upon the skin a very different action from non-malignant encysted tumours, in becoming adherent to it, and at length giving it more or less of a puckered appearance. Previously to complete softening and ulceration, when examined, after being removed, scirrhous tumours sometimes contain hydatids, or coagula of blood, or cysts filled with gelatinoid or melicerous, or even purulent matter. In many cases, scirrhus presents an assemblage of lobulated masses, compacted together, but separated by processes of cellular or *quasi* serous membrane; the whole being surrounded by a capsule of the same kind, appearances which have led Dr. Hodgkin to the conclusion, that there is a close anatomical

resemblance between this disease and some varieties of encysted dropsy. The conclusions of this able pathologist and benevolent man have not, however, been generally adopted by the profession. The lobulated arrangement to which we have referred presents a considerable variety, which has given rise to the epithets mammary, pancreatic, gelatinoid, &c. These varieties result partly from the stage of the disease, and partly from the texture of the organ affected.

"Scirrhus rarely appears before the age of thirty, in which respect it strikingly differs from encephaloïd. It is much more common in women than in men, and its favorite period for attack is from the fortieth to the fiftieth year. Rarely, perhaps *never*, does it occur before the period of puberty. The lymphatic temperament is said to predispose to it, and in some instances it seems to be connected with a hereditary taint, being transmitted from parent to offspring. In the uterus, mammary gland, and testicle, it has been repeatedly observed in three or four members of the same family. Very often it supervenes upon external violence, such as a blow, kick, or bruise, syphilitic disease, suppression of the menses, and the repulsion of herpetic eruptions. In other cases, again—and these are very common—it arises without any assignable cause. Corroding cares, by impairing the general health, sometimes induce this disease; and, in the female, it is often dependent upon sympathetic action between the uterus and the breast."

Scirrhus often attacks a considerable number of organs at the same time or progressively, and most commonly, it is said, selects those of a glandular structure. If, however, by glandular structure be meant *a secreting* structure, we are not entirely prepared to acquiesce in the conclusion. The salivary glands are seldom affected, the lungs and kidneys which respectively secrete more, perhaps, than any other organs of the body, are equally exempt. On the other hand, however, the mammæ and testes are exceedingly common seats of this complaint. Our own observations would lead us to think the

liver is not often affected. We are almost disposed to say, that parts endowed with great sensibility and possessing much erectile tissue are peculiarly liable. This would at least be true of the lips, the stomach, the rectum, the cervix uteri, the mammæ and the testes; parts which are undoubtedly oftener the seats of scirrhus than all the other organs of the body.

Professor Gross, in contemplating the origin of scirrhus, inclines to the opinion of the distinguished Professor Carswell, that it begins with a deposit of lymph, which at length becomes organized, having two sets of vessels, one formed in the mass itself, the other derived from the surrounding arteries. We have already expressed our doubts of the validity of this theory; which, if adopted, explains only the origin of the primary nodule, and makes no provision for the *malignant* ulceration which follows on its softening; or for the lesion of the constitution, which constitutes the cancerous diathesis.

"After having existed for some time, varying from a few months to several years, the scirrhous matter manifests a disposition to become soft, the process by which this is effected, like that of tubercle, commencing at different parts of the diseased mass, from which it extends in various directions, until the whole or the greater portion of it is broken up and dissolved. Some authors have contended that the liquefaction invariably begins in the centre; but that this is not true, the writings of pathologists abundantly attest. The process, then, may commence at any point, at the centre or at the periphery, or simultaneously in both these situations; and, as it advances, the superincumbent integuments crack at one or more places, through which the softened matter, now of the aspect of encephaloïd, jelly, syrup, gum, or honey, is ultimately discharged. Ulceration, however, it should be observed, often occurs in scirrhous tumours long before the internal disorganization in question is accomplished.

"A scirrhous ulcer possesses certain features which may be considered as characteristic. Generally, it is remarkably irregular in its shape, with a surface that is either cracked, fis-

sured, or fungous, of a dark reddish color, and of a peculiar glossy œdematous aspect. Soft cauliflower excresences sometimes sprout from it, so sensitive as to bleed on the slightest touch, or even of their own accord. The edges of the sore are of a reddish-gray color, elevated, everted, irregularly serrated, and harder in some places than in others, emitting more or less sanies on pressure. A deep excavation is occasionally formed, presenting the appearance as if a portion of the diseased mass had been lifted out of its bed. In cases which run their course very rapidly, the surface of the ulcer is frequently covered with a soft, grayish putrilage, of the most intolerable odor."

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"In this advanced state of the disease, the skin around the ulcer is of a purple color—from the overloaded state of its capillaries—hard, puckered, somewhat tender on pressure, and easily corroded by the irritating discharges. By degrees, the ulcer spreads, both in depth and in diameter, until at length the whole mass is involved in the disorganizing process, and the patient sinks under the exhausting hectic, caused by the profuse local discharges, and by the violent constitutional irritation. The lymphatic ganglions, it should be further stated, in the neighborhood, are almost constantly enlarged and indurated, and the tumour, instead of being moveable and circumscribed, as it was in the early stage of its growth, forms a hard, solid, undefined mass, which firmly adheres to the surrounding structures."

We come now to the last of the heterologous products recognized by our author—ENCEPHALOÏD;—the well known Fungus Hæmatodes of Mr. Hey, by whose interesting paper, this affection was first made known to most of our physicians. Other synonymes are spongoïd inflammation, soft cancer, medullary fungus, and medullary sarcoma. Such a multiplicity of names is not a little perplexing to the student of pathology and surgery. Of the whole, we prefer that imposed by Mr. Hey.

According to our author, this morbid structure may present itself under three aspects, the stratiform, the infiltrated and

the tuberous. The two former are rare—the last by no means uncommon, as every western practitioner can testify.

"In the tuberoïd variety, (Pl. IV, Fig. 1,) the heterologous matter appears in the form of a circumscribed tumour, from the size of a pea to that of a muskmelon. In its shape it is generally irregularly rounded, ovoïdal, or even quite flat, according to the amount of pressure that is exerted upon it by the surrounding parts; and, if it be examined by dissection, it will be found to be composed of different lobules, enveloped by a thin covering, and separated from each other by delicate membranous partitions. The outer covering, which is evidently formed out of the neighboring cellular tissue, is usually not more than half a line in thickness, easily torn, semi-transparent, and of a light rose color. From its inner surface are detached numerous processes, which, dipping into the morbid growth in various directions, form so many cavities for the reception of the new deposit. These septa, which are sometimes remarkably rough and shreddy, always become more obvious after the pulpy mass is squeezed out. The cells which they form by their intersections, are subject to much variety, and hence the peculiar lobulated shape which characterizes the morbid growth when occuring in parts that offer little or no obstacle to its extension.

"Although the covering of encephaloïd tumours is ordinarily derived from the pre-existing structures in their immediate vicinity, yet cases occasionally occur in which it is evidently of new formation. That this is true, my own dissections fully convince me. In such cases the external envelope is generally very thin; sometimes, indeed, almost like a film, easily lacerated, and of a grayish color, with rough, shreddy surfaces. The interior septa are likewise less perfect, and the whole mass is commonly so soft as to yield to the slighest force.

"The external envelope, together with the internal processes here described, is abundantly supplied with vessels which pervade the diseased mass in different directions, assist in its growth, and maintain its vitality. These vessels, which always consist of a much greater number of veins than of arteries, are often remarkably large and convoluted, and can be easily traced to the neighboring vascular trunks: their walls are exceedingly brittle, and the most trifling accident is therefore liable to be attended with an effusion of blood. Hence the dark clots which are so frequently met with in encephaloïd tu-

mours. The cerebriform substance itself, it should be stated, is easily squeezed out of its cavities, owing to its imperfect adhesion; and, intespersed through different parts of it, we frequently observe, besides the sanguineous deposits just adverted to, small cells filled with purulent matter, serum, or thin, sanious, and offensive fluid. In one case, I saw as much as half a pint of reddish serosity flow from a single cavity, the inner surface of which had a peculiar honeycomb-like appearance."

In the opinion of Andral the term fungus hæmatodes is, in fact, generic, and has been applied by different anatomists to very different morbid productions. One of them is a hypertrophy of the erectile tissue. The following are his remarks on this subject.

"When these vessels are thus increased in size, and therefore apparently in number, they sometimes undergo a peculiar modification in their texture, which gives rise to the formation of a tissue, for which I cannot find a better standard of comparison, than the structure of the spleen. In fact, we observe, just as in the spleen, numerous areolæ filled with blood, communicating freely with each other, and with large veins, the parietes of which, perforated in all directions, are divided at their termination, or rather origin, into simple filaments, losing themselves in the areolar tissue. In these veins and areolæ, the blood neither circulates nor stagnates, and in this way its quantity is exceedingly variable, and thus produces rapid changes in the consistence, form, and size of the tumour. In such cases, the blood not unfrequently escapes, and thus gives rise to copious hæmorrhages.

"The blood which is found in the areolæ presents the same varieties in its appearance, consistence and color, as the blood effused into the cells of the spleen; thus, in different tumours, or parts of the same tumour, it appears colorless, pale-red, greyish, like the lees of wine, or as black as the pigment of the choroid; it is perfectly fluid, of the consistence of currant jelly, or hard as a piece of muscle; sometimes it is impossible to separate it from the solids which invest it, sometimes it is easily removed by washing and pressure, the parenchyma in which it was contained then presenting exactly the appearance of a spongy texture: in all these respects it perfectly resembles the appearance and structure of the splenic parenchyma.

"Such is the morbid alteration which has been described under the various appellations of fungus hæmatodes, sanguineous tumour, and more recently *accidental erectile tissue.* In the midst of this vascular development, other lesions of nutrition or secretion may likewise occur; hence it is that in several tumours of fungus hæmatodes, there have been found, in addition to the peculiar anastomosis of vessels constituting its basis, different morbid productions, such as fibrous or scirrhous masses, pus, melanosis, &c. Similar tumours are, not uncommonly, formed in the cutaneous tissue, and more frequently still in the subcutaneous and intermuscular cellular tissue. They are also found in the mucous membranes and their subjacent tissues. Of all the parenchymatous organs, the testicle appears most liable to this disease, which constitutes in it one of the varieties of sarcocele. I recollect having seen, in the Hospital La Charite, a number of erectile tumours developed in the lungs of an individual, who had had one of his testicles removed several months before, in consequence of its being the seat of a tumour that was likewise of an erectile nature. The tumours in the lungs, five or six in number, were each about the size of a walnut: they were embedded in the substance of the lung, which was perfectly healthy all around them; and in the points they occupied, it looked exactly as if the parenchyma of the spleen had taken the place of the pulmonary structure. In another case, for the particulars of which I am indebted to Professor Marjolin, a tumour, perfectly resembling a portion of the spleen, was found in the brain of an individual, who, like the patient at La Charite, had also had one of his testicles removed for the same affection, as was ascertained on examining it after the operation."

True fungus hæmatodes is generally a disease of early life. Our author has seen it occur soon after birth, and we have lately met with a case in which it was congenital. We have also seen it in a patient upwards of fifty years old. Professor G. has met with it oftener in females than males; such, however, has not been our own experience.

"The most common seats of this morbid growth are the bones, eyes, testicles, liver, lungs, kidneys, uterus, lymphatic ganglions, and subcutaneous cellular tissue. In infants it often occupies the shoulder, the region of the clavicle, the side

of the chest, and the fore-arm. In adults I have seen a number of cases where it attacked the hand and fingers. Never have I observed it in the inferior extremities; but that it sometimes occurs here, the writings of pathologists abundantly testify. Encephaloïd has likewise been noticed in the veins, especially in those of the liver, of the kidney, and the uterus."

We have seen this malady attack the knee, the upper and inner part of the thigh, the soft parts about the ischium, the super-costal cellular substance between the axilla and the spine of the ilium, but above all the scapulary region which has seemed to us to be its favorite seat. But why this region should be more obnoxious than other cellular parts, we cannot tell. Since beginning this article, we have been consulted by a man whose case may be thus stated. He is thirty-one years of age, and by trade a cabinet-maker. About four years ago he discovered a small tumour in the right side, over the eleventh and twelfth ribs, which grew slowly for three years. Under exercise he felt some pain from the beginning, and tenderness on pressure. For the last year, he thinks it has rather decreased in size; but this is probably the result of the absorption of the healthy tissues in and around it. At this time it has an oval base, is but little elevated, feels knotted and corded within, and has formed attachments for the skin above, which is somewhat livid and marbled in its appearance, and exhibits many small varicose veins. From this tumour up to the shoulder there is a degree of fulness, which is quite perceptible to the eye when the patient is seen from behind. Indeed the scapula seems thrown outwards, and the sterno-spinal circuit of that side is an inch longer than the other. All round the margin of the scapula the parts are tender to the touch, and between that bone and the spine the pain has been such as to cause him to

apply an adhesive plaster. This pain is increased by the motion of the arm. The axillary ganglia are unaffected. We take this to be an incipient fungus hæmatodes.

We have met with but one case of this disease affecting the mamma, and then it had extended to that organ from the axilla and shoulder. We have twice been tempted to extirpate the eyeball disorganized by this malady. In the first instance, that of a child, it was associated with such a degree of ossification as rather to interfere with the progress of the knife. A fungus shot up rapidly from the socket, and the disease went to a fatal termination. In the other case, that of a woman near fifty years old, there were strong symptoms of reproduction, when she passed from under our care to a distant state, whence we have not heard the final issue. When lately at Zanesville, we were shewn by our friend, Dr. Rhodes, a testicle affected with this malady which he had extracted and the patient afterwards remained exempt.

The following is our author's account of the progress of this malady:

Encephaloïd disease, after having attained a certain development, may remain stationary for years, unaccompanied by the slightest uneasiness, until the part receive some injury, when it often grows with frightful rapidity. When seated in the subcutaneous cellular tissue, the tumour that is thus formed is at first quite movable, smooth on the surface, and devoid of sensation; but gradually, as the enlargement progresses, it becomes stationary, irregularly lobulated, elastic to the touch, and more or less painful. If allowed to proceed, the diseased mass has a tendency to open and protrude, generally by ulceration, sometimes by sloughing, and occasionally by the bursting of an abcess situated in its interior. In either case, the exposed surface presents a dark reddish fungous appearance, is highly sensitive, extremely vascular, very prone to hemorrhage, and constantly bathed with a thin, fetid, irritating, sanious fluid, the quantity of which is sometimes quite profuse. In many instances, pure blood is effused, caused by a rupture

of some of the vessels of the morbid growth; and this may be so obstinate and copious as gradually to destroy the patient. Occasionally there is a discharge of thin, glairy fluid, resembling the white of an egg. Such sores, besides being always highly disagreeable, never heal, from the inability of the parts to form healthy granulations. Sometimes the ulcerated mass sloughs as completely away as if it were dissected out; but these cases are uncommon, and are soon followed by a reproduction of the heterologous substance.

"Obstinate hemorrhage is most apt to occur in such tumours as are of the class to which Mr. Key applied the term fungus hæmatodes. In the eye, for example, much more frequently than elsewhere, the morbid growth, if it be permitted to go on unrestrained, is extremely prone to bleed. The reason of this is obvious. The diseased mass is almost always composed, in part, of a vascular, erectile tissue, interspersed with encephaloïd matter, and, as soon as ulceration sets in, hemorrhage, occasionally to an alarming and even fatal extent, is the consequence. The eroded surface, in these cases, is pale, livid, or mahogany color, and studded with large fungous excrescences, so grouped together as to resemble a cauliflower.

"In this advanced state of the disease, there is a rapid failure of the strength, the flesh wastes, the appetite declines, the patient is harassed with hectic fever, and the countenance assumes a peculiar yellowish, cadaverous hue. The lymphatic ganglions in the neighborhood meanwhile become enlarged, and converted into a substance resembling that of the original tumour. Two modes of explanation may be offered to account for this phenomenon. The one supposes that these bodies are effected merely sympathetically, in consequence of which their vessels pour out encephaloïd matter; the other, that this substance is carried to them by absorbing vessels coming from the affected part. Although this enlargement of the lymphatic ganglions seldom occurs before ulceration sets in, yet, in a few instances, I have known it to exist at an early period after the development of the heteroclite mass, a good while before the skin covering it manifested a disposition to give way."

We here close our analysis of the first part of Prof. Gross's Elements—that which treats of General Pathological Anatomy. The analysis of the second part will be commenced with our third volume. In thus continuing it through many successive numbers, our object is not so much to make known

the merits of this very excellent treatise, as to make it the occasion of a series of papers, designed to promote the study of pathology and pathological anatomy, in a region of country where these branches, particularly the latter, have not hitherto received the attention they deserve. For this purpose it seems to us peculiarly proper to employ as our text, a work written among those for whom we purvey, especially when we are compelled to regard it as superior to any other within their reach.

If we are not greatly misinformed the *alumni* of our Western Schools, and justice requires us to add of our Eastern likewise, have been seldom examined on morbid structure. A knowledge of healthy anatomy and of symptomatology has been demanded, but who can attempt to justify the omission of pathological anatomy? We trust that the day is not distant when the *onus* of our examinations will rest on that branch; and that a diploma will not be granted to one who is not as well acquainted with the morbid as the healthy structure of the body. D.

ART. VII.—*Transactions of the Medical Society of the State of New York.*—Parts II and III, Vol. IV.

The Medical Society of the State of New York is a legal organization of the medical profession, designed to protect the community against the impositions of unqualified practitioners, and to provide for the suitable education of those who aspire to the honorable but responsible office of healing the maladies of their fellow-citizens. And surely no object can be presented to the mind of an enlightened and patriotic

legislator, which should more powerfully enchain his attention, or more vigorously call forth all his energies for its attainment. Such an one must feel, after midnight vigils spent in devising remedies for the over-reaching of the avaricious and crafty, where dollars and cents alone are involved, that his solicitude would have been more worthily bestowed in guarding against the wiles of quackery, which filches not only the purse, but the health and lives of its dupes.

The State Medical Society of New York, which owes its existence to wise and provident legislation, is composed of delegates from county medical associations, that have each a corporate capacity, and are empowered by law to grant licenses to practice to such as have complied with specified conditions, and are found qualified after an examination by a board of censors. The County and State Societies hold regular meetings for the mutual improvement of their members, and to contribute their quota to the advancement of science. The State Society convenes annually at the capitol, in the month of February, and publishes, in the shape of *Transactions*, the avails of the systematic and stimulated labors of all within the limits of its jurisdiction.

Parts No. II and III of vol. IV, which are now before us, contain Addresses delivered on different occasions, and Essays on various subjects, together with abstracts of the Proceedings of the Society at its annual sessions in 1839, 1840. The following enumeration will convey an idea of their genral character:—1. *Annual Address on Quackery*, delivered before the Medical Society of the State of New York, February 6th, 1839, by Laurens Hull, M. D., President of the Society. 2. *Address on Spinal Disease*, delivered before the Tompkins County Medical Society in 1833, by Dr. A. Church, President of the Society. 3. *Address on Quackery*, delivered

before the Tompkins County Medical Society in 1834, by Dr. A. Church, President of the Society. 4. *Address on Medical Societies*, delivered before the Tompkins County Medical Society in 1835, by the late Daniel D. Page, M. D., President of the Society. 5. *Address on Observation and Attention*, delivered before the Tompkins County Medical Society in 1836, by the late Daniel D. Page, M. D., President of the Society. 6. *On Suicide and its Increase in the present day.* By John Ludw Casper, M. D., Professor in the University of Berlin, etc. Translated from the German by Horace. B. Webster. 7. *Statistics of the Medical Colleges of the United States.* By T. Romeyn Beck, M. D. 8. *Annual Address on Improvement in Medicine*, delivered before the Medical Society of the State of New York, February 5th, 1840. by Laurens Hull, M. D., President of the Society. 9. *Report of a Committee of the State Medical Society on the Subject of Medical Education.* Presented February 4th, 1840. 10. *On Diseases of the Spinal Column, their Causes, Diagnosis, History, and best mode of Treatment; being the* Prize Dissertation *for* 1840, by Nathan S. Davis, M. D., of Binghampton, Broome county, New York. "L'ami de nature." 11. *Address delivered before the* Chenango *County Medical Society*, October 8th, 1838, by Dr. Wm. D. Purple, President of the Society. 12. *Case of Sudden Death from Rupture of the Spermatic Vein.* By James M'Naughton, M. D., of Albany.

From this enumeration it will be seen, that the bill of fare offered us is sufficiently multifarious: we shall taste but few of its dishes at present, and are admonished by our limits to make a very temperate repast from even these. The *Report on Medical Education* by Drs. Beck, Manly and M'Call, is a very able and interesting document. It opens with a retro-

spect of the statutes which have been enacted, at different times, by the Legislature of New York, for the purpose of regulating the practice of Physic and Surgery in that Commonwealth. From the historical sketch the authors have drawn we gather that the evils of quackery claimed the attention of the Legislature at a very early period; that a series of acts were successively passed to insure competent qualification in those who should offer their services as practitioners of medicine; that the standard of qualification was gradually raised until the present system was established. According to its provisions, a student is required to study medicine four years with some physician and surgeon duly authorized by law to practice his profession, and at the end of his pupilage submit to an examination by a board of censors, before he can be allowed to practice, and no person is to be licensed until he has arrived at the age of twenty-one years. The law, however, admits the following exceptions; one year might be deducted from the term of study, provided the pupil had attended to *classical studies* for that period after the age of sixteen; and again, "*attendance on a complete course of lectures delivered by each of the professors, on all the branches of medical science in either of the medical colleges or institutions of this State or elsewhere,*" might be excepted in lieu of one year's study.

The design of the first of these exceptions, it is evident, is to hold out an inducement to students to acquire a proper preliminary education. The committee address themselves to the inquiry whether this is all that should be done to encourage preparatory education, and after comparing the medical with the legal and clerical profession, they arrive at the conclusion, that something more is necessary, and propose the requisition that the study of medicine be determined upon at

the age, say of sixteen, and that two years shall be devoted to classical studies, *or the higher branches of English studies equivalent to them.* Any feasible method of securing a proper amount of preliminary education to those who are destined for the medical profession, shall ever receive our hearty concurrence. The illiteracy of too many of those, who are thrusting themselves into our ranks, is a reproach and degradation to our profession, and has given currency to the belief that a dolt, who is too stupid for the bar or the pulpit, will do admirably well for medicine. But it does not occur to us that the object can be best attained by legal enactments; we should rather appeal to the *vis conservatrix* that is inherent in the profession itself, but has been shamefully permitted to slumber until our ranks exhibit a motley assemblage of ignorance and knowledge, talents and stupidity. How happens it that ministers of several denominations in this country are, as a class, better educated than physicians? Simply because the church has taken hold of the subject in the right spirit, and, under the conviction that a thorough course of training will augment the usefulness and respectability, nay, is indispensable to the success of the ministry, has prescribed a course of studies, to which all candidates are obliged to conform before they can be licensed to preach. In like manner, let our medical colleges exact a prescribed amount of attainments in classical learning and the higher branches of English studies, as a pre-requisite to graduation, and the work of purification will have been commenced, which, if faithfully persevered in, will eventuate in the restoration of the medical to its proper rank among the learned professions. We see no other remedy for the evil complained of. It is repugnant to the genius of our government, as it is to the temper and spirit of the governed, that the law should take cognizance of what may

as well be entrusted to the voluntary action of those who are chiefly interested. It is the interest of society to be protected against charlatanry, and it is therefore incumbent on the legislature to pass laws for its extermination; but those who are to pronounce on the qualification of candidates for license or graduation can best prescribe and enforce the course of studies, that shall be complied with, and they alone are the judges of the actual proficiency the pupil has made.

We have extended our remarks on this topic farther than we intended, and must turn to notice, very cursorily, two of the papers in the collection before us, which appear to possess the greatest practical interest; these are Dr. Church's *Address on Spinal Disease*, and Dr. Davis's *Essay on Diseases of the Spinal Column.*

Considering the extent and connexions of the spinal cord—running from one extremity of the trunk to the other, connected with the cerebral nerves and ganglionic system, and supplying nerves to the upper and lower extremities, indeed to almost the whole muscular system, Dr. Church is persuaded that it exercises a considerable influence over a great variety of diseases, and that it has been too much overlooked by physicians. While he acknowledges his indebtedness to the valuable little work of *Thomas Pridgen Teale*, for the first hints which he received respecting spinal diseases, Dr. Church claims to have successively treated a case on the principles laid down by that writer, just previous to the appearance of his treatise. The discovery of the nature of the case, he modestly avers, was rather the result of accident than of any sagacity of his. The case alluded to was that of a lady aged about 24 or 26 years, who was reported to have suffered from severe pulmonary inflammation for several

months previously, for which she had been bled repeatedly, and used other debilitating remedies.

"When I first saw her she scarcely complained of anything except debility, and occasionally a peculiar indescribable lassitude, which would suddenly come over her, when she was unable to support herself and was obliged to take to her bed where she was confined most of her time. On examination, the different functions appeared to be performed with the regularity of perfect health, pulse perfectly natural, tongue clear, appetite good, bowels and catamenia regular and skin natural. She complained of a tightness about the chest and a difficulty of breathing which occasionally came on in the evening and lasted for a short time and disappeared. I was inclined to attribute these symptoms to debility and accordingly prescribed tonics. After a trial of about ten days they had no effect whatever, and I was at a loss what to do. From some cause my attention was directed to the spine, on examining which, I found three of the dorsal vertebræ quite tender to the touch, and pressure upon them caused a stricture and tightness of the chest. I suspected this was in some way connected with the disease, if not a principal cause of it, and directed a blister to be applied to the part. I had the satisfaction to see the most decided relief result from this, and following it with the use of quinine and Dover's powders, together with tartar emetic ointment to the local affection for some time, the patient was restored to a tolerable state of health. I ought to have observed that during her convalescence, her feet and ankles swelled and became painful, attended with pain in the loins; this however, subsided without any particular treatment. I have conjectured that the case of this lady might have been originally an acute neuralgia of the chest, and not an inflammation. I have met with such cases in my practice and have generally found them very much relieved by bleeding, for a few hours, but the pain and stricture almost invariably return very soon, and if the bleeding is persisted in, or repeated often, the pain becomes aggravated at every repetition, until the patient is brought to the borders of the grave, and I have reason to believe that such treatment has proved fatal in more than one instance. When a delicate female, or any one in feeble health, is suddenly attacked with very acute pain of the side, if this pain is quickly relieved by bleeding, and returns again in a few hours after each bleeding, we ought to be extremely cautious lest we be imposed upon by the semblance of genuine inflammation, when nothing

but neuralgia is the cause of it, which is certainly aggravated by such depletion."

Dr. Church has met with a number of cases of disordered digestion, attended with soreness of the upper cervical vertebræ, which, he thought, had a very considerable influence over the disease, and sometimes seemed to be the principal cause of it. He relates the following very striking case:—

"A gentleman about forty-five years of age consulted me about two years ago, on account of a disordered state of the stomach, attended with a great deal of palpitation of the heart. He was greatly troubled with water-brash, tongue furred, bowels irregular, occasionally some fever. He had been troubled with the most of these sysmptoms for seven years, more particularly the palpitation and water-brash. When I first saw him the palpitation was alarming, and I had little doubt that he had an organic affection of the heart. I examined the cervical vertebræ, and found them very tender, particularly the upper ones. I concluded to adopt the plan of blistering the spine, together with alterative doses of blue pill, and a tonic of pulv. columbo. On seeing the patient two or three days after, I had the satisfaction of learning that the palpitation and water-brash had nearly disappeared immediately after the blister had drawn. His health rapidly improved from this time without interruption, exept an attack of ague and fever a short time afterwards, which was cured by quinine."

There is, he thinks, good reason to believe that sick-headache, which so often baffles every effort to cure or even to relieve it, is often an affection of the same part of the nervous system; he does not recollect an instance of habitual sick-headache, that has fallen under his observation, in which there was not soreness in the upper cervical vertebræ, and he has treated the complaint with blisters and irritants to the nape of the neck, obtaining thereby not only temporary relief but a radical cure.

We can add our testimony to the relief derived from irri-

tants, particularly sinapisms over the cervical vertebræ, in this distressing affection, although we have not pursued this method of treatment with a view to a raidical cure, and cannot therefore pronounce upon its efficacy from observation. Three cases are related by Dr. Church, in illustration of the treatment recommended; the following is one of them:

"A married lady of twenty-six years of age, had been for several years severely afflicted with what she called the blind headache. It came on once in a few months, commencing with sickness of the stomach, headache and giddiness to such a degree, that she was obliged to remain in bed constantly, and every attempt to raise herself in bed induced blindness for the moment. The remedies formerly used had done but little to alleviate the complaint, and she had come to the conclusion there was no remedy for it. I accidentally saw her while confined with one of these attacks, and inquired into her symptoms, particularly whether there was any soreness in the neck. I found there was a great degree, and on particular inquiry learned of her that she was habitually subject to a slight stiffness of the neck, not however to such a degree as to excite much attention. Under these circumstances I strenuously recommended a blister to the nape of the neck, and without any other remedy the disorder abated immediately, and she was well of her complaint by the time the blister had healed. I deemed it advisable to use stimulating liniment to the neck for some time as a precaution against a return of it. This occurred two years and a half ago, and the complaint has never returned."

Dr. Church closes his Address with the rehearsal of three cases of rheumatism in which spinal irritation or inflammation existed, and in which cups, blisters and stimulating liniments appeared to afford considerable relief; but as these are not particularly striking and less satisfactory than some others that have been published, especially those of Dr. John K. Mitchell in the American Journal of Medical Sicences for August, 1833, we forbear to quote from them.

Dr. Davis' essay on diseases of the spinal column is a much

more elaborate production than that of Dr. Church; its scope, also, is more extensive, embracing not only irritation but inflammation of the spinal cord, and curvatures of the spinal column. It is in fact a monograph of the whole subject of spinal diseases, evidently prepared with care, and is a good digest of what has been written by the most esteemed authors, interspersed with some very interesting observations of his own. In the closing chapter of his essay, *on spinal irritation*, the only one which our limits will permit us to notice, the author very properly cautions against ascribing too wide a range to the morbid influences of this peculiar condition of the medulla spinalis,—which, according to some writers, is the first link, the grand starting point of every disease. To enforce this caution, he relates the following instructive case:

"Not long since I was called to visit a young lady who had been scarcely able to leave her room except in a carriage for four or five years. She was considerably emaciated, with a languid countenance, tongue rather *red* but moist, pulse languid and feeble, bowels generally slightiy costive, sometimes relaxed, with frequent severe pain after indulging in too much food, appetite moderate, much pain along the course of the spine, and especially in the lumbar region, tenderness to pressure over the spinous processes of the inferior dorsal and upper lumbar vertebræ, great excitability, as well as debility of the whole system, with frequent palpitations of the heart, and a feeling of great languor and indisposition to exertion.

"This lady had been attended at different times, by a number of medical gentlemen, some of them of high standing in their profession. Her complaint had been considered one of general debility, *nervous irritation*, dyspepsia, or consumption.

"She had used accordingly and in succession tonics, chalybeates, dieting, very slight *frictions* with *tartar emetic ointment* over the *spine*, mercury to salivation, &c. She had once or twice resorted to the most celebrated watering places in our country, but all with no permanent benefit, and her health on the whole continued to fail, Not being satisfied

in regard to the nature of the pain in the back, I determined on making a more thorough examination. This was attended with some difficulty owing to the extreme delicacy of the patient. At length however, an old and experienced accoucheur, was permitted to make the desired examination.—And to *his* surprise "the os uteri was found low down in the vagina, and the fundus of the uterus thrown back toward the sacrum;" constituting a considerable degree of *prolapsus uteri* with partial *retroversion*. No cause for this displacement could be ascertained except the pernicious habit of *tight lacing*, and perhaps a little too free exercise in ascending a flight of stairs to take care of a sick relative, a short time previous to the commencement of her illness. And yet to any one acquainted with the extensive influence which this displacement exerts over the other organs of the system, it will afford an ample explanation of the preceding symptoms. And I scarcely need to add that the application of a proper mode of treatment, designed principally for remedying the uterine affection, has already afforded much relief."

Nevertheless Dr. Davis is well convinced that morbid irritability or irritation of the spinal cord may give rise to a great variety of distressing functional disorders in other organs, which will yield to no other treatment than counter-irritation over the spine. H. M.

Selections from American and Foreign Journals.

Ph. Ricord *on the special treatment of Phimosis and Paraphimosis.* Translated from the French for the Western Journal of Medicine and Surgery, by Benjamin Dennis, M. D., Cincinnati.

of phimosis.

Phimosis is complete or incomplete, permanent or temporary.

The permanent may be congenital or accidental, it may exist with excess in the length of the prepuce, with a prepuce not covering the entire gland, or with excess in the length of the frænum; it may have adherences to the gland, ancient or recent, complete or incomplete.

The temporary may be inflammatory or œdematous, complicated with erysipelas, with considerable tension, with gangrene, with inflammation of the gland, with blennorhagia, with chancres, with vegetations, with herpes, with perforation of the prepuce, with dysuria or ischuria. Before its development there might have been a slight narrowness of the prepuce, or to use a vulgar expression, the patient could only unsheath the penis with difficulty, the opening of the prepuce being very narrow.

Temporary phimosis, as its name indicates, happens in persons who, hitherto, found no difficulty in uncovering the penis, and yields without the necessity of an operation.

Permanent phimosis with excess in the length of the prepuce, or with induration of the circumference of that cutaneous envelope, demands circumcision, unless it is desired to remedy one deformity by creating another. When there are recent adhesions, easy to destroy, it is necessary to

dissect them; when they are too intimate and especially too much extended, the prepuce must be removed so as to free the meatus urinarius; when there is excess in the length of the frænum, the excision of it should be practised; if there are vegetations, they should be removed; if there are chancres, it is better, unless the indications are pressing, that they be cured before the operation, so that the danger of augmenting their extent by inoculating the wound resulting from the operation may be avoided. If the chancres still exist when the operation is practised, they should, as far as practicable, be included in the section. In this way the disease, which can only be local, may sometimes be entirely removed. If, however, some of the chancres still remain, they should be cauterized. When there are perforations of the prepuce, they should be included in the operation.

When the prepuce is short, the section of its superior part by the old method, may suffice. If the prepuce is only narrowed because of vegetations developed between it and the gland, a small incision will answer; in the contrary case, the incision should be carried to a level with the base of the gland. It is necessary to know, however, that even by the superior section, in making the excision of the angles, some patients are left with a strip of lengthened skin, corresponding to the frænum and constituting a true deformity.

In certain cases, I pinch up longitudinally a fold of the superior part of the prepuce, and remove thus a flap which leaves a division in the form of the letter V, the base of which corresponds to the verge of the prepuce, and the apex to the base of the gland.

As it regards the section of the inferior part of the prepuce, according to the method of Cecus, an operation that M. le Professeur Cloquet has revived and re-created by perfecting it, it is no more liable to wound the urethra, than the superior section. However, I reject it in most cases, especially in phimosis with excess in the length of the prepuce, for it gives place to a deformity in every respect similar to that observed in certain hypospadiœvi.

Giving then the preference to circumcision, this is the method that I employ.

First. The penis being in a state of relaxation, without drawing out the skin which forms the prepuce, I trace with ink, a line which follows in its entire circumference, the oblique direction of the base of the gland, and about two lines in advance of that base.

Second. This being done, I draw the prepuce forward and

fix it between the clamps of the dressing forceps, placed immediately before the gland and behind the line traced by the ink, the direction of which they follow. The forceps are held by an assistant, the rings being on the side of the dorsal face of the penis, and not transversely as it has been advised in another method.

Third. The portion of the prepuce that protrudes beyond the clamps of the forceps is then seized with the fingers of the left hand of the operator, whilst the right armed with a straight bistoury, makes the section, following the oblique direction of the forceps, which placed before the gland, protects it and serves as a sort of guide to the bistoury.

Fourth. After this section, the mucous lining, which on account of its anatomical disposition, cannot be drawn forward like the the skin, remains entire upon the gland which it covers, and should be divided in order to avoid a secondary phimosis or paraphimosis.

In order to perform this part of the operation, I divide, at a single stroke with the scissors, this mucous lining upon the dorsal face of the gland and as far as its base; afterwards seizing, one after another, the flaps resulting from the division that I have just indicated, I practise the excision of each side, following the corona glandis as far as the fraenum; then at a single stroke, holding the two flaps united, I cut the fraenum, which I take away with them.

The consequences of circumcision according to my method, appear to me to be more favorable, than those resulting from any others; of this one may become convinced at the venerial hospital. The cure is usually accomplished in about twenty to twenty-five days; no deformity nor even a consecutive phimosis or paraphimosis ever resulting.

After the operation the artery of the frænum or some of the prepucial branches often bleed freely and should be twisted or ligatured. It is necessary afterward to keep the penis constantly covered with cold water, in order to avoid erections and inflammation. With the view also of preventing erections, pills of camphor are given to the patient.

The uninterrupted suture as a means of union offers no very great advantages.

OF PARAPHIMOSIS.

Paraphimosis, which is nothing else than phimosis carried behind the gland which it compresses, producing all the acci-

dents that may result from strangulation, requires that the parts be replaced in the normal relations.

When the constriction is not very considerable, a methodical compression will suffice for the reduction; in order to accomplish this, the penis should be enveloped in a compress saturated with cold water; it is then to be taken fully into the hands, and after sufficiently compressing it, the compression should be removed; then taking the penis into the left hand, the base of the gland is to be pressed by the fingers of the right, in order to make it enter the ring behind it which is formed by the prepuce. Another method consists in seizing the penis behind the constriction, between the indicatus and the medius of the two hands, whilst the thumbs compressing the sides of the gland, attempt to force the strangulated tissues over.

When there is œdema, it is necessary to practise punctures, thus disgorging the tissues, before attempting the reduction.

But whenever the strangulation is considerable, or when there are ulcerations of the constricted tissues, or adhesions, or inflammation of the gland, threatning, if not already producing gangrene, and further, when the paraphimosis has succeeded a phimosis;—to follow the common method of reducing it will serve only, amid the most poignant suffering excited by the bad management, to aggravate the difficulties already present, and in all cases to convert a paraphimosis into phimosis, which will afterwards require an operation.

In place of those multiplied incisions that have been advised, I make one upon the dorsal face of the penis which completely divides the skin, beginning at the point of the strangulation, and carrying it backward in length equal to that of the gland. This incision is made with a straight and narrow-bladed bistoury, which is glided under the skin, passing under the bridle which is formed behind the gland by the verge of the prepuce. In relation to the mucous lining of the prepuce, which produces in front of the constriction, an œdematous enlargement more or less firm, it should be completely divided in the same direction.

If I have been understood, the operation that I practice thus, is only the operation for phimosis by the superior part, carried behind the gland; consequently the consecutive cures are those of this last operation.

The Rain for nine years—The results of Meteorological observation are highly interesting and instructive. They be-

long to the scientific world, and should be thrown into the general treasury of knowledge to enrich those who love to draw from an exhaustless source. The superficial may see little to attract his attention in long columns of figures, but there are minds that find food for thought among these "husks" of philosophy.

The table below has been accurately calculated from the valuable Register long kept by the Rev. Dr. Allan.—It exhibits the result of nine years observation in reference to the amount of rain which has fallen monthly at Huntsville. The calculations appended may serve to assist the mind in grasping truth well nigh beyond its scope. If they chance to shake the credulity of any, with the data given, let them test their correctness. Table to be read as inches and thousandths.

	1831	1832	1833	1834	1835
January, - - -	6,708	2,771	6,873	10,410	4,855
February, - - -	2,344	3,456	11,451	8,242	3,186
March, - - - -	4,260	1,934	10,796	2,907	6,096
April, - - - -	4,156	5,540	4,900	3,332	12,303
May, - - - -	4,295	3,602	5,909	4,152	3,183
June, - - - -	4,656	2,147	7,996	1,162	6,372
July, - - - -	4,155	5,463	3,878	4,844	3,739
August, - - -	4,567	6,653	2,494	7,060	10,256
September, - -	0,830	2,216	2,037	4,026	2,136
October, - - -	1,651	4,711	3,820	5,849	1,667
November, - -	3,602	2,272	2,905	3,046	4,960
December, - -	2,217	5,567	4,605	7,620	1,523
Total, - - -	43,441	47,332	67,664	63,240	60,276

	1836	1837	1838	1839
January, - - - - - - -	4,848	1,523	5,226	2,631
February, - - - - - -	3,048	4,107	2,869	2,076
March, - - - - - - -	5,817	5,316	3,185	4,601
April, - - - - - - -	5,162	3,323	2,769	3,739
May, - - - - - - -	6,532	2,492	4,017	1,937
June, - - - - - - -	3,605	7,029	6,085	5,541
July, - - - - - - -	8,403	1,662	3,948	2,636
August, - - - - - -	6,129	5,546	0,692	1,800
September, - - - - -	1,243	4,015	3,190	2,221
October, - - - - - -	2,115	5,230	1,800	0,000
November, - - - - -	1,384	3,052	9,124	0,227
December, - - - - -	6,364	3,879	5,123	2,215
Total, - - - - - -	54,754	47,084	48,328	29,074

The average fall of rain for each of the last nine years has been fifty-one inches and one hundred and thirty-two thousands, (51,132.) It is interesting to compare this with the average of eleven years observations made at thirty-four different stations in the state of New York. As published in the American Almanac it is 35,150. The difference of latitude being 8 deg. and 15 sec. will give 1,938 as the increase in the fall of rain for every 69½ miles due south.

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SUMMER AND AUTUMN DISEASES OF 1840.

In one of our early numbers, we took occasion to call our readers attention to the fact, that the years 1838 and 39 had been uncommonly dry; but that 1840 up to the time (May) when we wrote had been rainy. As the summer and autumn, generally, have been wet, the year may be characterized as one of great humidity. In the article to which we have referred, it was suggested that a more favorable opportunity for estimating the comparative influence of dry and rainy seasons, would be furnished by these extremes, than was likely to occur again very soon.

We now ask, in what respects have the summer and autumnal diseases of the present year, differed from those of the two preceding? This question ought to be answered, and can be answered better at this time than hereafter, for memorandum books never become more copious, nor memories more accurate by time.

In our travels, for medical observation, in the State of Ohio, we have ascertained that the towns have been more healthy than the country; and, while the latter has not suffered any great *mortality*,

intermittent and remittent fevers have had rather an extensive prevalence. Again we respectfully and earnestly solicit from our brethren a state of their observations on these and our other summer and fall endemics. D.

SCARLET FEVER.

It is worthy of being noted, that this foreigner seems, in fact, to have become naturalized among us—though it has not made a special "location." In past times it appeared as an occasional epidemic; but in these latter days it has been sojourning among our towns and neighborhoods,—now here and now there, sometimes mild, sometimes malignant, generally the former with as much quiet composure as one of our own veritable endemics. Such a gentle but protracted invasion would seem to afford many opportunities for studying its mode of dissemination, the means by which it destroys life, and the measures by which it may be successfully countervailed. We are sorry to find, however, that the profession are every where divided on these different points. Some cry out for—others against contagion: some stand up for acute inflammation and a liberal use of antiphlogistics—others stimulate throughout the whole course of the disease. Finally others do nothing. Each party has a certain number of facts to offer in support of their opinions, and seem little disposed to open their eyes to an examination of any others. In the midst of this great contrariety, but three truths are perceptible: first, that scarlatina *will* run its course; second that, when mild in character, the patient lives under *any* plan of treatment; third, that when malignant he dies *whatever* remedies may be employed. Such at least are our impressions, but we shall be most happy to publish evidences that the last is untrue. D.

COW-POX.

It is melancholy to observe the apathy which prevails among the people and the profession, on the subject of vaccination. Such neglect deserves the severest rebuke. Thousands are growing up in

the West, without being protected against small pox, although protection is so entirely within the reach of every individual from the cabin to the mansion. Verily, we are negligent people, in every thing but trade and politics. When the presidential election is over, it is to be hoped, we shall find time to get our children vaccinated.

D.

LICKING COUNTY MEDICAL AND PHILOSPHICAL SOCIETY.

We lately had the pleasure of attending one of the meetings of a new scientific association at Newark, Ohio, under the above title; and are indebted to Dr. Marble, one of its members, for an account of its organization and objects. In contemplates the cultivation of mineralogy, geology, chemistry and Botany, in connexion with medicine, and provides for admitting as members, gentlemen who are not of the medical profession. It looks to the establishment of a museum, the delivery of lectures and essays, and the gradual formation of a library. Some of the members have a number of specimens of pathological anatomy and comparative anatomy which will be made the basis of a cabinet of that kind. It is expected to have courses of lectures to which the community at large will be admitted.

The Society consists of four classes of members. 1st. *Senior members*, consisting exclusively of physicians. 2d. *Junior members*, consisting of students of medicine. 3d. *Active honorary members*, residing near enough to participate in the regular meetings of the Society. 4th. *Honorary members*, residing at a distance.

The Society elects its officers annually and holds regular quarterly meetings. The following are the officers, for the present year:

John I. Brice, *President;* Daniel Marble, *Vice President;* Dr. J. N. M'Millan, *Recording Secretary;* A. O. Blair, *Treasurer;* D. Marble and J. Dille, *Corresponding Committee;* Edward Stansberry, John M. Wilson, D. Marble, A. O. Blair, E. F. Bryan, *Censors;* F. B. Parmele, V. H. Roe, A. D. Bigelow, and J. Dille, *Curators.*

We wish our Newark friends, in this praiseworthy effort to promote the cultivation not only of medicine but its associate sciences.

D.

GREEN COUNTY MEDICAL SOCIETY.

The physicians of Green county, Ohio, in 1839, formed themselves into a society under this style. The officers for the present year are Dr. Matthias Winans, President; Dr. Joshua Martin, Vice President; Dr. J. J. M'Illhenny, Recording Secretary; Dr. John Dawson, Corresponding Secretary; Dr. Joseph Templeton, Librarian; Dr. James Cummings, Treasurer.

At each meeting a person is appointed to read a dissertation at the next; and it is expected that every member of the society, will report all the important cases which occur in his practice. These reports may be made either in writing or orally; and are liable to critical examination. They are, indeed, themes for discussion; and exercises thus gotten up, cannot fail to be eminently useful.

The Society has adopted a system of rules and regulations for the government of its members in their professional intercourse with one another, and also a fee bill, designed to produce uniformity of deportment and charging.

Should Societies of this kind be organized in all the counties of the West, their influence would prove salutary in the highest degree to the character and interests of the profession.

The Green County Society holds its meetings in the town of Xenia. D.

A PIN RETAINED IN PHE BODY NINETEEN YEARS AND THEN DISCHARGED.

We are indebted to Dr. Darius Maxon, of Gallipolis, Ohio, for the following fact, which presented itself in his practice a few weeks since.

Nineteen years ago a lady swallowed a pin, which was followed by symptoms of aggravated dyspepsia. For several days before it was discharged she was affected with a pain in her left side for which the Doctor applied an antimonial plaster, that produced pimples, through one of which the pin made its exit. A slight discharge of bloody serum followed. The pin was considerably coated and its head removed to its middle. D.

AMERICAN PHILOSOPHICAL SOCIETY.

Among the proceedings of this Society for May, June, and July, of the present year, a copy of which we have received, we find some interesting remarks on tornadoes, from which the following extracts are made:

"Dr. Hare adverted to the fact, that in an essay, published in Silliman's Journal in 1822, he had, agreeably to the authority of Dalton and Davy, stated, that the cold consequent on the rarefaction of air in its ascent towards the upper strata of the atmosphere was one of the causes of the formation of clouds; and in his text books he had soon after published an engraving of an apparatus, by means of which he was accustomed to illustrate, before his pupils the transient cloud which arises from a diminution of pressure in air containing aqueous vapour.

"In the essay above mentioned, Dr. Hare had alleged, that as much caloric was given out by aqueous vapour, during its conversion into snow, as would be yielded by twice the weight of red-hot powdered glass. But Mr. Espy, he considered, had the merit of being the first to suggest, that the heat, thus envolved, might be an important instrument in causing a buoyancy tending to accelerate any upward current of warm moist air.

"Dr. Hare had been willing to admit, that this transfer of heat might co-operate with other causes in the production of storms, but could not concur with Mr. Espy in considering it competent to give rise to thunder gusts, tornadoes or hurricanes. These he had considered, and still considers, to be mainly owing to electoral discharges between the earth and the sky; or between one mass of another."

"Professor Bache read an extract of a letter addressed by Mr. Forshey, of Natchez, to Mr. Espy, in reference to the tornado which occurred there recently.

"The writer stated that he had spent much time in examining the track of the storm in the vicinity of Natchez. He had ascertained its extent to have been not less than five or six miles below the city, and twenty miles beyond; its effects having been felt, but with less violence, for nearly one hundred and fifty miles. The track near Natchez was directed sixty degrees to the east of north. After describing the destruction of the city of Natchez, the writer states, that objects were every where blown towards the track of the storm; those directed most westwardly lying invariably below those directed more eastwardly. Mr. Forshey also describes the effect upon the houses as of an explosion outwards. In his view, these facts strongly confirm Mr. Espy's theory of this meteor."

"Mr. Walker made some remarks on the tornado, of limited extent, which visited Philadelphia on the 13th instant.

"Mr. Walker's own observations, and those of several intelligent individuals, on different sides of the central path, led him to the conclusion, that the currents from without the borders of the tornado were directed, in every instance, towards its centre. This was mani-

fest from the motion of the clouds, in the different strata of the atmosphere. The theory of the central tendency of the currents in tornadoes, usually ascribed to Mr. Espy, was, Mr. Walker remarked, of older date, having been advanced by Franklin in the middle of the last century. The whirl, on which so much stress is laid by Mr. Redfield and Colonel Reid, was distinctly seen in the lower current, where the condensed vapor, resembling spent steam, moved round in a spiral, making several turns downwards, each of smaller dimensions than the preceding, and resembling the motion of water in a common whirlpool. This circumstance seemed, to Mr. Walker, somewhat contradictory to part of Mr. Redfield's theory, that of the gradual enlarge of the periphery of the whirl, whereas the motion in the present instance was in a spiral tending inwards." Y.

MEDICAL SOCIETY OF TENNESSEE.

This Society at its meeting in May offered a premium of fifty dollars for the best Essay on ***Bilious Fever***, to be submitted under the following circumstances:

"Dissertations on this subject must be transmitted, post paid, to Samuel Hogg, M. D., Nashville, Tennessee, on or before the 1st Monday in March, 1841.

"Each Dissertation must be accompanied with a sealed packet, on which shall be written some device or sentence, and within shall be endorsed the author's name and place of residence. The same device or sentence is to be written on the dissertation to which the packet is attached.

"All unsuccessful dissertations are deposited with the Corresponding Secretary of the Society, from whom they may be obtained if called for within one year after they have been received."

The Committee appointed to read the Dissertations and award the prize, consists of Drs. Felix Robertson, Thomas R. Jennings, and J. H. Atkinson, of Nashville. Y.

LOUISVILLE MEDICAL INSTITUTE.

The Clinical Lecture-Room, of which we made mention, in our last number, as promising to add materially to the means of instruction already in possession of the Faculty of the Medical Institute, is now fully completed, and will be used by the Professors of Clinical Medicine and Surgery during the approaching term. The apartment is spacious enough to accommodate four hundred students, all of whom by the favorable arrangement of the seats will have a full view of patients undergoing examinations and operations.

The number of students now in the city authorises the belief, that the Class this season will be as large as that of the last. Y.